WOLF CREEK
NUCLEAR OPERATING CORPORATION

Steven R. Koenig
Manager Regulatory Affairs

January 6, 2015
RA 15-0002

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Subject: Docket No. 50-482: Revision of the Radiological Emergency Response Plan (RERP) for Wolf Creek Generating Station (WCGS)

Gentlemen:

In accordance with 10 CFR Part 50.54(q)(5) and 10 CFR 50.4, a revision of the Radiological Emergency Response Plan (RERP) for Wolf Creek Generating Station (WCGS) is enclosed. The attached summary of these changes explains that these changes do not reduce the effectiveness of the WCGS RERP. This letter contains no commitments. If you have any questions concerning this matter, please contact me at (620) 364-4041.

Sincerely,

Steven R. Koenig

SRK/rlt

Attachment
Enclosure

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**Summary of Changes to the Wolf Creek Generating Station (WCGS)
Radiological Emergency Response Plan (RERP)**

1. Procedure AP 06-002, "Radiological Emergency Response Plan (RERP)," Rev. 16

Wolf Creek Nuclear Operating Corporation (WCNOC) replaced the former near-site Emergency Operations Facility (EOF) with a new EOF, which contains the Alternate Technical Support Center (TSC) and Alternate Operations Support Center (OSC) required by 10 CFR Part 50, Appendix E, Section IV.E.8.d. The new EOF is approximately 12 miles from WCGS and became operational on December 9, 2014.

These changes affect sections 6.4, 6.6, 6.12, 6.14, 6.16 and Figure 7 of the WCGS RERP. These changes are being made to ensure compliance with:

1. 10 CFR 50, Appendix E, Section IV.E.8.b that establishes distance criteria for a licensee's EOF. The establishment of a new EOF within 10 to 25 miles of the nuclear reactor does not require a backup facility.

2. 10 CFR 50, Appendix E, Section IV.E.8.d that requires the licensee to identify an alternate facility that would be accessible even if the site if under threat of or experiencing hostile action with the capability to function as a staging area for augmentation of Emergency Response Organization (ERO) staff to minimize delays in emergency response and provide for a swift coordinated augmented response.

These changes to the WCGS RERP also affect the following emergency planning standards:

1. 10 CFR 50.47(b)(1)

    a. "Primary responsibilities for emergency response by the nuclear facility licensee and by State and local organizations within the Emergency Planning Zones have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis."

    b. WCNOC response: TSC and OSC personnel reporting to the Alternate TSC and Alternate OSC have the same responsibilities as personnel responding to the primary TSC. Staffing and augmentation also remain the same as the primary TSC.

2. 10 CFR 50.47(b)(5)

    a. "Procedures have been established for notification, by the licensee, of State and local response organizations and for notification of emergency personnel by all organizations; the content of initial and followup messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established."

    b. WCNOC response: The notification procedures for notifying state and local governmental agencies are not changing. In addition to radios and telephones, the off-site communications room is also equipped with a satellite telephone and an external antenna to provide an additional method of communication. No changes have been made to the Alert Notification System or the public information processes.

3. 10 CFR 50.47(b)(6)

    a. "Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public."

    b. WCNOC response: Communication capabilities at the Alternate TSC and Alternate OSC include a telephone system using a Voice Over Internet Protocol (VoIP), which transmits call using a digital signal over an Internet Protocol network; telephone lines that connect directly to the local public telephone system; portable and base station radios; computers; facsimile machines and satellite telephones. Back-up electrical power is provided by a stand-by diesel generator and a back-up universal power supply provides power until the diesel generator supplies power to the EOF, Alternate TSC and Alternate OSC.

4. 10 CFR 50.47(b)(8)

    a. "Adequate emergency facilities and equipment to support the emergency response are provided and maintained."

    b. WCNOC response: TSC and OSC personnel reporting to the Alternate TSC and Alternate OSC are provided with adequate facilities and equipment to perform their functions in accordance with regulatory requirements. The Alternate TSC and Alternate OSC are provided dedicated space within the EOF. Communication capabilities at the Alternate TSC and Alternate OSC include a telephone system using a VoIP, which transmits call using a digital signal over an Internet Protocol network; telephone lines that connect directly to the

local public telephone system; portable and base station radios; computers; facsimile machines and satellite telephones. Back-up electrical power is provided by a stand-by diesel generator and a back-up universal power supply provides power until the diesel generator supplies power to the EOF, Alternate TSC and Alternate OSC. Off-site notifications can be completed using telephones within the Alternate TSC and Alternate OSC or by using equipment in the EOF Communications Room. Engineering assessment activities can be performed at the Alternate TSC and Alternate OSC. The document storage room provides access to the same reference materials as the primary TSC. Computers in the Alternate TSC provide access to the same assessment and planning programs as available in the primary TSC. A muster area, which can be used for briefings and team preparation, is provided for OSC personnel.

5. 10 CFR 50.47(b)(9)

   a. "Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use."

   b. WCNOC response: Plant information can be monitored at the Alternate TSC and Alternate OSC by using *RTIME Viewer. If *RTIME Viewer is not available, plant information would be acquired from the Control Room. Computers in the Alternate TSC provide access to the same assessment and planning programs as are available in the primary TSC. Dose assessment software is available.

6. 10 CFR 50.47(b)(10)

   a. "A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed."

b. WCNOC response: No changes to Protective Action Recommendations (PARs) have been made. The Alternate TSC and Alternate OSC is a dedicated space within the EOF. The EOF is located approximately 12 miles from WCGS and resources can be rapidly deployed to WCGS when conditions allow access. The EOF is located beyond the locations at which roadblocks would be established by local law enforcement personnel in the event of a hostile action at WCGS.

Step 6.4.6.2 of procedure AP 06-002 was revised to provide additional clarification on the location of first aid kits, emergency equipment and supplies. Step E.3.1 of attachment E to procedure AP 06-002 clarifies wording in the EPZ/Kansas Protective Action Guides. These changes do not change any of the capabilities or functions described in the WCGS RERP and do not reduce the effectiveness of the WCGS RERP.

Sections 6.17, 6.18, and 6.19 of procedure AP 06-002 were revised in accordance with 10 CFR Part 50, Appendix E, Section IV.F, "Training." These changes provide instruction to submit exercise scenarios to the NRC at least 60 days before the exercise date and provide instruction to include the key principle functional areas of emergency planning and a wide spectrum of events and conditions in emergency planning exercise scenarios.

These changes also comply with 10 CFR Part 50, Appendix E, Section IV.F.2.g by requiring correction of any weaknesses of deficiencies identified in critiques of exercises, drills or training; with 10 CFR Part 50, Appendix E, Section IV.F.2.i by providing enhanced guidance for exercise scenario developers to use a wide spectrum of radiological releases and events, including hostile actions; and with 10 CFR Part 50, Appendix E, Section IV.F.2.j by defining the variety of content required to be included in exercises over the eight-year period and by specifying the records to be maintained in compliance with these requirements. These changes to procedure AP 06-002 enhance guidance for the training, drill and exercise program, conform to regulatory requirements and, therefore, do not reduce the effectiveness of the WCGS RERP.

WOLF CREEK
NUCLEAR OPERATING CORPORATION

AP 06-002

RADIOLOGICAL EMERGENCY RESPONSE PLAN (RERP)

Responsible Manager

SUPERINTENDENT EMERGENCY PLANNING

Revision Number	16
Use Category	Information
Administrative Controls Procedure	Yes
Management Oversight Evolution	No
Program Number	06

DC64 12/09/2014

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1.0 PURPOSE

1.1 The purpose of the Wolf Creek Generating Station (WCGS) Radiological Emergency Response Plan (RERP) is to classify emergencies, assign responsibilities for actions, and to establish the lines of authority and communications to protect the public and plant personnel in the event of an emergency.

2.0 SCOPE

2.1 The RERP has been developed in accordance with 10CFR Part 50, Paragraph 50.47 and Appendix E, Regulatory Guide 1.101 and generally follows the guidelines of NUREG 0696 and 0654. The RERP is sensitive to a broad spectrum of emergency conditions which have been postulated for a commercial pressurized water reactor. Although the probability of an accident is low, the RERP is maintained to assure the safety and well-being of plant personnel and members of the public in the vicinity of WCGS.

2.2 The RERP interfaces with several related documents such as the Administrative Procedures (APs) and Emergency Plan Procedures (EPPs). Detailed instructions necessary to support the RERP are included in these procedures and are available for training, drill, and actual emergency use. The RERP references the WCGS Fire and Security Plans, Vendor contingency plans as well as those of medical support facilities and the Institute of Nuclear Power Operations (INPO). This document has been designed to coordinate with the State Emergency Operations Plan and the Coffey County Contingency Plan for Incidents Involving Commercial Nuclear Power, which govern the activities of these support groups in response to events at WCGS.

2.3 The RERP is based on a graduated, escalating level of emergency response which is activated as conditions at the plant warrant. This approach provides the flexibility necessary to ensure adequate emergency response to a spectrum of possible events. The RERP is designed to control emergency response activities ranging from initial event detection, classification of the event, notification of off-site authorities and providing protective action recommendations to the county and state.

2.4 The RERP reflects three chief phases of activation. First the response is dominated solely by the site staff, next the onsite and off-site public information facilities are jointly activated, and finally the recovery efforts are performed by site, public information facilities, vendor, and other critical support groups.

2.5 The WCGS normal operating organization and its functional responsibilities are described in the WCGS Technical Specifications, Administrative Procedures, Human Resources company organization charts and the WCGS Updated Safety Analysis Report (USAR). No further discussion of the normal operating organization is contained within the RERP.

2.6 The WCGS design bases accidents and various plant systems are listed and described in the WCGS Technical Specifications and USAR. No further discussion of these accidents or systems is contained within the RERP.

2.7 The owners of WCGS do not respond to the site during emergency events for augmentation. The Wolf Creek Nuclear Operating Corporation organization functions from the site during normal everyday operations.

3.0 REFERENCES AND COMMITMENTS

3.1 References

3.1.1 Coffey County Contingency Plan for Incidents Involving Commercial Nuclear Power (County Plan)

3.1.2 The State of Kansas Radiological Emergency Response Plan for Nuclear Facilities

3.1.3 Updated Safety Analysis Report (USAR)

3.1.4 NUREG 0654, Criteria For Preparation And Evaluation Of Radiological Emergency Response Plans And Preparedness In Support Of Nuclear Power Plants

3.1.5 NUREG 0696, Functional Criteria For Emergency Response Facilities

3.1.6 NUREG 0737, Clarification Of TMI Action Plan Requirements

3.1.7 Title 10, Code Of Federal Regulations, Part 50

3.1.8 Regulatory Guideline 1.101

3.1.9 Regulatory Guide 1.145

3.1.10 PIR 2002-1524, Minimum Staffing Requirements

3.1.11 Wolf Creek On-Shift Staffing Analysis

3.1.12 Wolf Creek Generating Station Development of Evacuation Time Estimate (October 2012)

3.2 Commitments

3.2.1 RCMS #93-325, Emergency Action Levels Converted To NUMARC EALs

3.2.2 APF 06-002-01, EMERGENCY ACTION LEVELS, required to have a 50.54(q) review performed for each revision.

3.2.3 RCMS #05-115, NRC Bulletin 2005-02 Guidance Definitions

3.2.4 RCMS #05-118, NRC Bulletin 2005-02 Guidance For Drills And Exercises

4.0 DEFINITIONS

4.1 Administrative Procedures (APs)

4.1.1 Procedures which provide programmatic responsibilities and are typically used to solve problems, assemble documentation, process information, and present results of administrative functions.

4.1.2 Administrative procedures control activities affecting quality or nuclear safety.

4.2 As Low As Reasonably Achievable (ALARA)

4.2.1 Making every reasonable effort to maintain exposures to radiation as far below dose limits as is practical, consistent with the purpose for which the licensed activity is undertaken, taking into account the state of technology, the economics of improvements in relation to benefits to the public health safety, and other societal and socioeconomic considerations.

4.3 Alert

4.3.1 Events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of HOSTILE ACTION. Any releases are expected to be limited to small fractions of the Environmental Protection Agency (EPA) Protective Action Guideline (PAG) exposure levels. **[Commitment Step 3.2.3]**

4.4 Assessment Actions

4.4.1 Those actions taken during or after an accident to obtain and process information that is necessary to make decisions to implement specific emergency measures.

4.5 Coffey County Emergency Operations Center (County EOC)

4.5.1 The base of operations for the Coffey County Emergency Response Organization.

4.6 Consultant/Vendor

4.6.1 The Nuclear Steam System Supplier (NSSS), Architect/Engineer, and other organizations who have available multidiscipline teams ready to support emergency response and Recovery Operations.

4.7 Control Room

4.7.1 The location at the WCGS from which the reactor and its auxiliary systems are normally controlled.

4.8 Drill

4.8.1 A supervised activity used to develop and maintain skills. On the spot correction of erroneous performance is permitted.

4.9 Emergency Action Levels (EALs)

4.9.1 Radiological dose rates; specific contamination levels of airborne, waterborne or surface-deposited concentrations of radioactive materials; or specific instrument indications that may be used as thresholds for designating a particular class of emergency.

4.10 Emergency Alert System (EAS)

4.10.1 A coordinated network of broadcasters (e.g. Radio, Television, Cable) that allows the President to address the nation, Governors to address their State and public safety officials to address local citizens with emergency information.

4.11 Emergency Classification

4.11.1 A system used to define the severity of emergencies into one of four categories based upon projected or confirmed emergency action levels. Classifications listed in order of increasing severity are Notification of Unusual Event (NUE), Alert, Site Area (SAE) and General Emergency (GE).

4.12 Emergency Operations Facility (EOF)

4.12.1 This facility serves as a base of operations for all emergency plant support activities, site environmental surveillance, communications with supporting agencies, and the WCGS Emergency Organization.

4.13 Emergency Plan Procedures (EPPs)

4.13.1 Specific procedures providing step-by-step actions to implement the WCGS Radiological Emergency Response and Recovery Plans, and to provide guidance to improve or terminate an emergency situation.

4.14 Evacuation Registration Center

4.14.1. Facility designated for receiving personnel evacuating the Emergency Planning Zone (EPZ) for accountability, contamination monitoring and decontamination.

4.15 Exclusion Area

4.15.1 That area within a 1200-meter radius of the Containment Building in which WCGS has the authority to determine all activities including exclusion or removal of persons and property from the area.

4.16 Executive Management

4.16.1 Those members of WCGS management at the vice president level and above.

4.17 Exercise

4.17.1 An event that simulates a radiological emergency condition, incorporates the integrated capability of the basic elements existing within the Radiological Emergency Response Plan (RERP). These events are normally evaluated by FEMA / NRC.

4.18 General Emergency (GE)

4.18.1 Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with the potential for loss of containment integrity or HOSTILE ACTION that results in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area. **[Commitment Step 3.2.3]**

4.19 Hostile Action

4.19.1 An act toward a Nuclear Power Plant (NPP) or its personnel that includes the use of violent force to destroy equipment, take hostages, and/or intimidates the licensee to achieve an end. This includes attack by air, land, or water using guns, explosives, projectiles, vehicles, or other devices used to deliver destructive force. Other acts that satisfy the overall intent may be included. HOSTILE ACTION should not be construed to include acts of civil disobedience or felonious acts that are not part of a concerted attack on the NPP. Non-terrorism-based EALs should be used to address such activities (e.g., violent acts between individuals in the owner controlled area). **[Commitment Step 3.2.3]**

4.20 Hostile Force

4.20.1 One or more individuals who are engaged in a determined assault, overtly, or by stealth and deception, equipped with suitable weapons capable of killing, maiming, or causing destruction. **[Commitment Step 3.2.3]**

4.21 Immediate Notification

4.21.1 Notification made to State of Kansas and Coffey County authorities within 15 minutes of a declared emergency at WGCS.

4.22 Joint Information Clearinghouse (JIC)

4.22.1 The facility where news statement and news conference materials for the media are prepared.

4.23 Kansas State Emergency Operations Center (State EOC)

4.23.1 The command-and-control center for the state.

4.24 Licensed Operators

4.24.1 WCGS Reactor Operators and Senior Reactor Operators who are licensed under 10CFR55 and who stand watches on shift and report to the Shift Manager.

4.25 Media Center (MC)

4.25.1 Facility utilized as a focal point for giving information to the media through news conferences.

4.26 Notification of Unusual Event

4.26.1 Events are in process or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection has been initiated. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs. **[Commitment Step 3.2.3]**

4.27 Off-site

4.27.1 Any area outside the Exclusion Area of WCGS.

4.28 Onsite

4.28.1 Any area inside the Exclusion Area of WCGS.

4.29 Operations Support Center (OSC)

4.29.1 A staging area for emergency teams to support the emergency response effort.

4.30 Owner Controlled Area

4.30.1 Property contiguous to the reactor site and acquired by fee, title or easement for Wolf Creek Generating Station for which public access is limited.

4.31 Protective Actions

4.31.1 Those emergency measures taken before or after a release of radioactive material has occurred for the purpose of preventing or minimizing radiological exposures to personnel.

4.32 Protective Action Guides (PAGs)

4.32.1 Guides promulgated by the Environmental Protection Agency (EPA) which set dose limits for the evacuation of the public during an accident condition at a nuclear power plant.

4.33 Radiologically Controlled Area (RCA)

4.33.1 An area to which access is controlled by WCGS for purposes of protection of individuals from exposure to radiation or radioactive materials.

4.34 Recovery

4.34.1 Post-emergency efforts initiated to restore WCGS to full operation or place the plant in a safe shutdown condition until full operation can be resumed.

4.35 Site Area Emergency (SAE)

4.35.1 Events are in process or have occurred which involve an actual or likely major failure of plant functions needed for protection of the public or HOSTILE ACTION that results in intentional damage or malicious acts; (1) toward site personnel or equipment that could lead to the likely failure of or; (2) that prevent effective access to equipment needed for the protection of the public. Any releases are not expected to result in exposure levels which exceed EPA Protective Action Guideline exposure levels beyond the site boundary. **[Commitment Step 3.2.3]**

4.36 Technical Support Center (TSC)

4.36.1 The TSC serves as a center outside of the Control Room that acts in support of the command-and-control function and houses the OSC organization. Plant status and diagnostic information are available at this location for use by technical and management personnel in support of reactor command-and-control functions.

5.0 RESPONSIBILITIES

5.1 Site Emergency Manager

5.1.1 Assumes command and control of the emergency and directs onsite response to stabilize plant conditions.

5.2 Off-site Emergency Manager

5.2.1 Assumes command and control of the emergency and interfaces with off-site agencies.

5.3 Superintendent Emergency Planning

5.3.1 Ensures the Emergency Planning Program is implemented and maintained as required to protect the health and safety of the public.

5.3.2 Ensures changes to the overall Emergency Planning Program meets the standards of 10CFR50.47(b) and the requirements of 10CFR50, Appendix E.

5.4 Manager Quality

5.4.1 Ensures a review of the WCGS Emergency Preparedness Program will be performed at least once every twelve months in accordance with 10CFR 50.54(t).

5.5 President and Chief Executive Officer

5.5.1 Maintains overall authority and responsibility for the WCGS Emergency Preparedness Program.

5.6 Public Information Officer (PIO)

5.6.1 The PIO has the authority and responsibility for the WCGS Public Information Organization and all plant information disseminated to the media.

5.7 Shift Manager (SM)

5.7.1 The Senior Reactor Operator designated by WCGS management with immediate onsite authority and responsibility for the safe and proper operation of the plant. This position is staffed at all times. The Shift Manager is responsible for the initial evaluation of any abnormal or emergency situation and for directing the appropriate response. He assumes responsibilities of the Emergency Manager until relieved.

6.0 PROCEDURE

6.1 Site Description

6.1.1 WCGS is a Pressurized Water Reactor (PWR) nuclear generating station operated by Wolf Creek Nuclear Operating Corporation (WCNOC).

6.1.2 WCGS is located near the center of Coffey County, Kansas (KS), about 3.5 miles northeast of Burlington, the county seat, 90 miles southwest of Kansas City, MO and 55 miles south of the state capital Topeka, KS.

6.1.3 The immediate site environs are sparsely populated. Burlington and New Strawn are the major population centers. John Redmond Reservoir (JRR) and Coffey County Lake (CCL) are the major recreational facilities. Most of the seasonal or daily shifts in population are associated with recreational areas around JRR and CCL. Approximately 70% of the annual visitors to the John Redmond Reservoir and Coffey County Lake come to the area during the summer months.

6.1.4 The 10-mile Plume Exposure Emergency Planning Zone (EPZ) is a major consideration in the RERP. Approximately 99% of the 10-mile EPZ is located within Coffey County and 1% within Anderson County. The EPZ has been defined by developing sub-zones based upon natural and political subdivisions. These have been described for evacuation zones approximating 2, 5 and 10-mile radial rings. This distribution allows ready identification of areas to be evacuated and facilitates public recognition of subzones in which they work or reside. FIGURE 1, EFFECTIVE 10 MILE EPZ, SUBZONES AND EVACUATION ROUTES, presents the 2, 5 and 10-mile radial zones and subzones which provides the basis for the design of an alert and notification system.

6.1.5 The total population of the effective 10-mile EPZ is shown in ATTACHMENT B, SUBZONE EVACUATION TIMES. With the exception of Burlington and the other population centers listed in ATTACHMENT A, EFFECTIVE 10-MILE POPULATION CENTERS, the population density of the effective 10-mile EPZ is approximately 4.4 persons per square mile. Other than the WCGS, there are no large industries in the area.

6.1.6 Principal geographical features within the effective 10-mile EPZ are the Neosho River, JRR, and CCL. The land around WCGS is flat with scattered low hills. Dense vegetation in the form of large trees exists on the banks of the river and in recreational areas. There are no topographical features within the effective 10-mile EPZ that significantly influence the design of the Alert and Notification System.

1. Sparsely populated farm land comprises the majority of the effective 10-mile EPZ.

2. The site also demonstrates favorable topography, demography, and meteorology, which have been factored into many analyses that support the emergency planning effort.

3. The Neosho River is oriented northwest-southeast and extends to within 3 miles southwest of the plant.

4. The main dam of the John Redmond Reservoir is 3.5 miles west of the plant. This water conservation pool is approximately 4 miles in diameter with a surface area of 15 square miles.

5. The Coffey County Lake is approximately 7 miles long with a normal surface area of 8 square miles.

6.1.7 The meteorological conditions within the effective 10-mile EPZ are characterized by a distinctly continental climate with warm humid summers and highly variable winter weather. Maritime tropical air originating over the Gulf of Mexico is the dominant air mass from June through August. This air mass is quite humid resulting in considerable thunderstorm activity. From November through February, continental polar air dominates the climate.

6.2 Emergency Classifications

6.2.1 10 CFR Part 50, Appendix E, Section IV.C, requires a classification scheme of four specific levels of emergencies. NUMARC/NESP 007 is identified within REGULATORY GUIDE 1.101 and is considered by the NRC as an acceptable alternative method to that described in Appendix 1 to NUREG 0654. **[Commitment Step 3.2.1]**

6.2.2 An emergency class is a qualitative estimate of the status of the plant. Inputs to the emergency classification system include the status of plant systems and the levels of radiation in plant areas and effluents. However, an emergency class does not give a qualitative or quantitative estimate of the subsequent status of the plant or radioactive release.

6.2.3 The emergency classes are used by off-site authorities to determine the level of preplanned actions to be taken by their emergency organizations. Protective actions taken on behalf of members of the public are the legal responsibility of state and local government.

1. The functional interfaces between WCGS and other emergency organizations are shown in FIGURE 6, EMERGENCY ORGANIZATIONS INTERFACES.

6.2.4 The classification system used at WCGS is an approach that ranges from primarily event-based for Unusual Event to primarily symptom or barrier-based for General Emergencies. This is to better assure that timely recognition and notification occurs, that events occurring during refueling and cold shutdown are appropriately covered, and that multiple events can be effectively treated.

6.2.5 The Emergency Action Levels (EAL) are contained in APF 06-002-01, EMERGENCY ACTION LEVELS. The EAL have been developed and agreed upon by WCGS, the State of Kansas and Coffey County and approved by the NRC. **[Commitment Step 3.2.1]**

1. The EAL are reviewed annually by the State and County.

6.2.6 10 CFR Part 50, Appendix E, Section IV.C.2, requires licensees to establish and maintain the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications to plant operators that an emergency action level has been exceeded and shall promptly declare the emergency.

6.2.7 Each emergency classification causes certain actions to happen such as notifications, activation and evacuation.

1. An NUE requires plant personnel, the County and State to be notified. No evacuation or activation required.

2. An Alert requires plant personnel, the County and State to be notified. The Emergency Response Organization (ERO) is called out and the emergency facilities are activated. Accountability may be performed if necessary.

3. A Site Area Emergency requires plant personnel, the County and State to be notified. The ERO is called out and the emergency facilities are activated. The protected area is evacuated of non-responding personnel for accountability. JRR and CCL are evacuated. Accountability for site personnel is performed.

4. A General Emergency requires plant personnel, the County and State to be notified. The ERO is called out and the emergency facilities are activated. The site is evacuated of non-responding personnel. JRR and CCL are evacuated. Accountability for site personnel is performed.

6.3 Emergency Measures

6.3.1 Protective actions to minimize personnel exposure are taken when an incident has occurred, or may occur, which could result in a fission product barrier challenge or breach. In addition, protective actions are taken for personnel onsite for situations such as fires or flooding, where personnel safety is threatened.

6.3.2 Emergency measures consist of assessment, corrective, and protective actions. The Shift Manager and Senior Reactor Operators assume immediate responsibility for accident assessment and mitigation. The RERP and detailed emergency actions are based on the assumption that, in an emergency, licensed operators take appropriate measures to maintain or return the facility to a safe condition, in accordance with operating license conditions and the technical specifications.

1. Callout of the ERO to augment the on-shift staff and to activate the Emergency Facilities is performed at an Alert or higher classification or whenever augmentation is deemed necessary.

6.3.3 Immediate and Follow-up notifications made to State and County authorities provide information for their use in making prompt decisions for notifying the public and ordering off-site protective actions.

1. Immediate notifications are made for each emergency classification.

2. Immediate notifications are made to the Coffey County Sheriff dispatcher and the Kansas Division of Emergency Management State Duty Officer within 15 minutes.

3. The notification form contains information agreed upon by WCGS, the State and County for each of the Immediate and Follow-up notifications. The following is a list of information that may be on the form:

   - o Name of facility
   - o Date and time of classification
   - o Classification
   - o Release status, type of material and estimated duration
   - o Message authentication of phone call
   - o Subzones recommended for protective actions
   - o Meteorological conditions
   - o Dose rates at site boundary
   - o Event Prognosis, worsening or termination

6.3.4 Actions to protect the general public, and criteria for their implementation, are described in the State Plan. Protective action recommendations are made to the County and State authorities.

1. ATTACHMENT E, EPA/KANSAS PROTECTIVE ACTION GUIDES, illustrates the EPA/Kansas PAGs for members of the public in the vicinity of WCGS and contains information typical of what may be used for the PAR guidelines. The Attachment provides guidelines and action levels to be used to develop protective action recommendations. Wolf Creek makes PARs for releases beyond the 10 mile EPZ. County and State officials have authority to take protective actions off-site.

2. Evacuation is the normally anticipated off-site protective action. Sheltering may be the preferred protective action when it will provide protection equal to or greater than evacuation. ATTACHMENT B, SUBZONE EVACUATION TIMES, contains evacuation times for the general and transient public.

3. An Alert and Notification System, made up of a number of sirens, is one means of alerting the public. Tone Alert radios are also used for notifications.

6.3.5 Contact point for information concerning the County Plan, protective measures, and special needs of the handicapped is the County Emergency Management Office.

6.3.6 Additional resources available for accident assessment include accident monitoring and in-plant iodine instrumentation under accident conditions. Detailed discussions of these resources and their capabilities are found in the USAR.

6.3.7 The Emergency Dose Calculation Program (EDCP) is a computerized method to provide dose estimates using actual or estimated meteorological data (wind speed, wind direction, degree of cloud cover, day or night determination) and radiological effluent data (actual measurements, estimated values based upon USAR source terms, or field measurements). EDCP is designed to: [Reference Step 3.1.9]

1. Use radiological and meteorological information to provide an estimate of off-site exposure.

2. Be capable of estimating release rates and off-site exposures from off-site field team data.

3. Be capable of estimating release rates and off-site exposures for an unmonitored, pressure driven containment release using the Containment High Area Radiation Monitor readings and changes in containment pressure.

4. Off-site dose predictions when combined with actual release duration information and meteorological data during an event, provide sufficient data to estimate the cumulative population dose resulting from the event. The actual off-site population dose is confirmed by off-site monitoring, sampling and analysis.

6.3.8 Radiological monitoring teams have a goal of 60 minutes from the declaration of Alert or greater emergency to be ready for deployment to confirm effluent readings and verify plume emission and locations.

6.3.9 FIGURE 7, WCGS EMERGENCY RESPONSE FACILITIES, provides a view of the off-site area, showing the location of the EOF. FIGURE 8, DIRECT RADIATION PATHWAY SAMPLING LOCATIONS, shows the fixed air sampling and RDD locations. FIGURE 9, WATERBORNE PATHWAY SAMPLING LOCATIONS, shows locations for collecting water samples.

6.3.10 At a Site Area Emergency, General Emergency, or when accountability is required, all personnel not responding to an Emergency Response Facility report to an assembly area for accountability and additional information. ERO personnel report to their assigned emergency facility. Security reports the results of accountability to the TSC.

6.3.11 IF the Exclusion Area is evacuated, THEN Security shall direct an inspection of the lake and land area within the Exclusion Area but outside of the Protected Area to ensure that all personnel not responding to an Emergency Response Facility are evacuated from the Exclusion Area.

6.3.12 WCGS procedures contain decontamination instructions and guidelines. Methods for determining if the individual is a potential inhalation or ingestion contamination case are also provided. The Radiological Coordinator or appropriate Health Physics supervisory personnel will review the records generated by decontamination procedures.

1. Decontamination can be performed in the access control area of the Control Building, in the HVAC room of the TSC, and in the garage in the EOF.

2. Other decontamination areas are setup as designated by the Health Physics personnel on the ERO.

6.3.13 Respiratory protective devices and protective clothing are stored at several locations onsite and at the EOF. The use of protective clothing and respiratory protection equipment is governed by normal WCGS procedures.

6.3.14 A supply of potassium iodide (KI) is maintained at the Control Room, TSC and the EOF to be used in the event that an individual may be exposed to radioiodine.

6.3.15 There are suggested levels of exposure to be accepted in emergencies. Immediate reentry may be necessary to save a life, account for missing personnel, or secure vital equipment. The Emergency Managers are ultimately responsible for exposure control and can permit the receiving of up to 5 REM per person for work activities, 10 REM for saving valuable equipment and 25 REM for lifesaving after consulting with the NRC, if feasible. Exposure which might exceed 25 REM, for lifesaving activities, must be approved by an Emergency Manager. Although EPA and NRC do not provide specific guidance for the upper bounds for lifesaving exposure, WCGS has chosen to use the following criteria:

1. Emergency Managers shall not knowingly permit an individual's exposure to exceed 25 REM, unless it is for lifesaving activities or protection of large populations. Emergency Managers shall not knowingly permit an individual to enter a high dose area if the projected Total Effective Dose Equivalent (TEDE) is expected to exceed 75 REM.

   - o Those individuals designated to exceed 25 REM must be volunteers and be fully aware of the risks involved.

2. Emergency Managers should obtain the advice and concurrence of the Radiological Coordinators in approving additional exposure.

6.3.16 Under emergency conditions, normal exposure controls are maintained. This is ensured by the on-shift Health Physics Technician (HP) in the Control Room, the Radiological Coordinators in the TSC and EOF.

6.3.17 The Radiological Coordinator has responsibility for maintaining exposure control for site activities, including establishment of access control at alternate locations. Strict exposure control of individuals passing through the access point is maintained on a 24-hour-per-day basis.

6.3.18 In order to enhance the exposure control process and to provide dosimetry for an expanded number of people, dosimetry vendors are available to expedite shipment of extra dosimetry devices to supplement existing onsite supplies of dosimetry equipment and to supply personnel to assist in onsite appraisal of exposures.

6.3.19 When activated, the Emergency Response Team covers emergency sampling, surveying, analysis, and hazard evaluation.

6.3.20 Personnel, instruments, and equipment are to be monitored at the access control point. Personnel and equipment decontamination is controlled in accordance with WCGS procedures.

6.3.21 WCGS maintains control over the Exclusion Area as necessary, restoring affected onsite areas to acceptable conditions for access.

1. Reentry into affected areas is a controlled evolution. Surveys are performed, environmental samples are obtained and analyzed, and areas posted or decontaminated.

6.3.22 Contamination limits for food supplies and drinking water are based upon the State of Kansas Protective Action Guides, as presented in ATTACHMENT E, EPA/KANSAS PROTECTIVE ACTION GUIDES.

6.4 Emergency Facilities

6.4.1 Control Room Facilities

1. The Control Room is designed to be habitable under emergency conditions. The Control Room contains controls, instruments, and communications equipment necessary for operation of the plant under both normal and emergency conditions. The ventilation system, shielding, and structures are designed and built to permit continuous occupancy during a postulated design basis accident.

2. Equipment available in the Control Room gives early warning and continuous evaluation of potential emergency situations. Portable radiation survey instruments are readily available within the Control Room.

3. Access to the Control Room is controlled by the Shift Manager.

6.4.2 Technical Support Center Facilities

1. The TSC is a brisk 2 minutes and 15 seconds walk from the Control Room inside the Protected Area. This is sufficiently close to permit face-to-face interaction between personnel in the Control Room and the TSC, should telephone communications become inoperable.

2. The TSC is activated in the event of an Alert or higher emergency. The TSC may be activated during an NUE at the discretion of the Shift Manager.

3. The TSC is designed to the seismic criteria of the Uniform Building Code. It is designed to withstand 100-year-recurrence winds and is located above the probable maximum flood level.

a. The manually activated single-train, non-seismic Category I TSC ventilation system utilizes high-efficiency particulate air and charcoal filters. The radioiodine monitoring equipment in the TSC provides a designed minimum detectable level of 1.0E-07 uCi/cc radioiodine. A radiation monitor (including the monitor for radioiodines) alarms to alert TSC personnel if radiation levels may affect the habitability of the TSC.

b. Portable radiation monitoring equipment is provided in the TSC for backup radiation monitoring capability.

c. Equipment for Emergency Response Teams is available in the TSC. This equipment includes protective clothing, dosimetry, survey meters and respirators.

d. A diesel generator is available to provide backup power to the TSC. Until the diesel is loaded, batteries are available for Nuclear Plant Information System (NPIS).

e. The TSC is sized to accommodate a minimum of 25 persons and has the same radiological habitability as the Control Room under accident conditions.

4. Personnel in the TSC have access to the following materials:

   - o WCGS USAR, Environmental Report, and Technical Specifications
   - o Plant operating and emergency procedures
   - o WCGS, State, and Coffey County emergency response plans
   - o System drawings, schematics, and diagrams

5. An Alternate TSC is located at the EOF. The Alternate TSC would be used in the case of a hostile action or other event impeding site access. The Alternate TSC provides access to the same materials as the primary TSC. The Alternate TSC has the capability to:

- o Communicate with the EOF, Control Room and Security personnel

- o Perform off-site notifications of a plant emergency

- o Perform engineering assessment activities, including damage control team planning and preparation

6.4.3 Operations Support Center

1. The OSC is housed in the TSC and is activated whenever the TSC is activated.

2. The OSC serves as an assembly area for plant personnel immediately serving in emergency repair or Health Physics support capacity during an event. The OSC functions include the coordination, formation and dispatch of Emergency Response Teams.

3. The basement of the Security Building has been identified as an alternate location for the OSC function. It contains telephones and a Gai-Tronic call box, which will allow direct communications with the other emergency centers. Portable radios are available to key personnel to further provide communications with other emergency centers.

4. An alternative OSC muster area is included with the Alternate TSC at the EOF. The Alternative OSC muster area would be used in conjunction with the Alternate TSC.

6.4.4 Emergency Operations Facility (EOF)

1. The EOF is located approximately 12 miles north northwest of WCGS, near the junction of I-35 and US-75, and is activated at an Alert or higher emergency. Following facility activation, overall emergency response is managed from the EOF.

   a. This facility serves as a center for evaluation and coordination of environmental activities related to the emergency including radiological assessment and the evaluation of potential or actual radioactive releases from the plant.

2. The EOF is a commercial building that is well engineered for the design life of the plant.

a. A diesel generator is available to provide backup power to the EOF. Until the diesel is loaded, UPS backup is available for equipment used to access plant data upon loss of AC power.

b. The EOF is sized to accommodate at least 35 persons.

3. Accommodations and telephones are provided for a limited number of County, State and Federal personnel. Facilities are provided for staging field survey efforts from the EOF.

4. The EOF serves as the base of operations for evacuation assessments and for communications with federal, state, and local response organizations. Radio and telephone links are available to the TSC, and Control Room.

5. Personnel in the EOF have access to the following materials:

   - o WCGS USAR, Environmental Report, and Technical Specifications
   - o Plant operating and emergency procedures
   - o WCGS, State, and Coffey County emergency response plans
   - o System drawings, schematics, and diagrams

6.4.5 Public Information Facilities

1. The Public Information Facilities include the Joint Information Clearinghouse (JIC), Media Center (MC), Phone Team, and Rumor Control. These facilities may be established as follows:

   a. The JIC and Phone team in either the Wolf Creek Dwight D. Eisenhower Learning Center or in Topeka at the Kansas State Defense Building.

   b. The MC in either the Wolf Creek Dwight D. Eisenhower Learning Center or in Topeka at the Nickell Memorial Armory.

2. At an NUE, information is provided to the public by Corporate Communications. The Wolf Creek Public Information Facilities may be staffed at any time, as determined by the Wolf Creek Public Information Officer, to support the distribution of information to the public.

3. At an Alert or higher emergency, the Public Information Organization activates in Topeka.

4. The JIC, MC, and the Phone Team are kept in close proximity to each other to facilitate coordination of information in the form of news statements, news conferences or telephone conversations.

   a. Dedicated telephone lines allow contact between the JIC, TSC, and the EOF. The JIC contains status boards, appropriate office supplies, computer(s), printer(s), faxing and photocopy capabilities, and outside telephone lines.

5. The Wolf Creek PIO, the State PIO and Coffey County PIO communicate with the Public Information Coordinators (PIC) to obtain technical information. The PIOs prepare news statements at the JIC and coordinate their efforts.

6. The MC will accommodate media representatives in an auditorium and adjoining Media Room for news conferences. The Media Room is a facility setup to provide the media with a work area, audio/visual material, outside telephone lines and public information status boards.

7. Media Monitoring and Rumor Control functions for WCGS, the State and Coffey County are performed by members of the Public Information Organization. Appropriate equipment and supplies, fax and telephone communications with the JIC are available. Approved news statements and information are transmitted to the Media Monitoring Team after the JIC is activated.

   a. The Media Monitoring Team reports any rumors or misinformation heard or observed from their monitoring of the media to the JIC.

6.4.6 Onsite Medical Facility

1. A medical facility located in the Clyde Cessna building, is staffed with a full time Licensed Practitioner. This facility is equipped to provide basic medical response capabilities.

2. First aid kits, emergency equipment and supplies are available to ensure that assistance can be provided to injured and/or contaminated personnel.

3. Shift personnel, trained in first aid, are available onsite 24 hours per day. Priority should be given to treating those with the most urgent medical needs.

4. In the case of contamination, efforts are made to decontaminate injured personnel onsite, as soon as practicable. However, first aid or removal of the individual from a hazardous environment, takes precedence over decontamination efforts. If decontamination is not possible, the victim is covered in such a manner as to avoid any spread of contamination until medical aid can be obtained or hospitalization accomplished.

5. Personnel leaving the RCA are monitored for contamination. All personnel are monitored for contamination before leaving the site.

   a. Personnel may be monitored by portal monitors or friskers when entering or leaving WCGS facilities.

   b. Personnel found to be contaminated must undergo decontamination under the direction of health physics personnel using health physics supplies and equipment available during routine activities. Release limits for personnel decontamination are found in the Radiation Protection Manual.

6.4.7 State and County Facilities

1. Coffey County Emergency Operations Center (County EOC) is located in the Coffey County Courthouse, Burlington, KS. The County EOC is a command center for county agencies and a mustering area for personnel who arrive in the WCGS area in response to an emergency. The County EOC is activated at the Alert level with the additional support staff activated upon declaration of an SAE or GE. Other centers are established as the emergency needs dictate.

2. Kansas State Emergency Operations Center (State EOC), located in the State Defense Building, 2800 South Topeka Boulevard, Topeka, KS, is the command-and-control center for the State.

3. The State Forward Staging Area is located about 11 miles north of WCGS in the roadside park at the intersection of Old Highway 50 and U.S. 75. When it becomes necessary for the State to dispatch emergency personnel to the plume exposure pathway emergency planning zone (EPZ), the State activates the State Forward Staging Area to serve as a secondary base of operations for state personnel and a local contact point with Coffey County.

6.4.8 Evacuation Registration Center

1. People in the EPZ should evacuate to Emporia on I-35, should exit I-35 at Merchant Street and go to the Emporia State University Physical Education building at 18th and Merchant Street.

6.5 Control Room Organization

6.5.1 The Shift Manager is responsible for the initial evaluation and classification of any abnormal situation and for directing the appropriate response, including initial activation of a callout.

1. Control Room personnel are on shift 24 hours a day. The shift complement is shown in Figure 2, MINIMUM SHIFT STAFFING.

6.5.2 Upon declaration of an emergency, the Shift Manager assumes the duties of Emergency Manager. The Shift Manager normally goes to and remains in the Control Room unless it is necessary for him to leave the Control Room in order to perform specific assessment, corrective, or protective actions. The Shift Manager performs the following actions:

- o Initiate appropriate technical measures to mitigate the event
- o Determine if releases have occurred, make the necessary assessment of the off-site concentration of radioactivity resulting from a release, and evacuate non-essential personnel if necessary
- o Direct the activities of the Control Room Emergency Notification System (ENS) and Off-site Communicators
- o Ensure immediate and follow-up notifications are made which provide sufficient information on emergency classification, plant status, off-site dose projections or measurements, and issue recommendations for off-site protective actions to authorities responsible for off-site emergency measures
- o Ensure NRC Resident Inspector is notified as soon as possible after the State and County are notified
- o Ensure notifications to the NRC are made as soon as possible within 60 minutes of classification of an emergency in accordance with 10CFR50.72(a)(3)
- o Ensure other notifications are made in accordance with EPPs
- o Activate onsite emergency teams if required
- o Notify plant personnel of the change in plant status

6.5.3 Off-site Communicator

1. The Off-site Communicator reports to the Shift Manager, performs initial notifications, and initiates the Automatic Dialing System (ADS) or Backup ADS to callout the ERO.

   a. A manual callout of personnel to staff the ERO is performed if the ADS and Backup ADS are not functioning.

6.5.4 Emergency Notification System (ENS) Communicator

1. The ENS Communicator reports to the Shift Manager and maintains communications with the NRC.

6.5.5 Chemistry Technician

1. The Chemistry Technician reports to the Shift Manager and performs dose assessment until relieved by Dose Assessment personnel in the EOF.

6.5.6 Health Physics Technician

1. The Health Physics Technician reports to the Shift Manager and performs radiation monitoring for personnel sent from and in the Control Room.

6.5.7 Control Room Supervisor

1. Reports to the Shift Manager and provides direction to Reactor Operators and Nuclear Station Operators for the safe operation of the unit.

6.5.8 Reactor Operators

1. The Reactor Operators report to the Control Room Supervisor and perform plant monitoring and reactor manipulations as needed from the Control Room.

6.5.9 Nuclear Station Operators

1. Nuclear Station Operators report to the Control Room Supervisor and perform local plant monitoring and manipulations as directed.

6.5.10 Shift Technical Advisor

1. The Shift Technical Advisor reports to the Shift Manager and performs STA requirements as assigned by the NRC.

6.5.11 Initial emergency response to the major functional areas is within the capabilities of the minimum operations shift complement.

6.5.12 On-shift staff augmentation is available, when deemed necessary, in accordance with ATTACHMENT D, WCGS MINIMUM STAFFING FOR EMERGENCIES.

6.6 Technical Support Center (TSC) Organization

6.6.1 TSC activation will be performed as soon as practical and within the times as stated in the following:

1. During off-normal working hours, it is the goal to activate the TSC within 75 minutes of a declaration of an Alert or higher classification.

2. During normal working hours, it is the goal to activate the TSC within 30 minutes of a declaration of an Alert or higher classification.

6.6.2 The TSC is considered activated when the following positions are present, the Site Emergency Manager determines the facility is ready to activate, and declares the facility activated:

- Site Emergency Manager
- TSC Operations Coordinator
- TSC Administrative Coordinator
- TSC Radiological Coordinator
- Maintenance Coordinator

6.6.3 The TSC organization is shown in FIGURE 3, TSC/OSC ORGANIZATION.

6.6.4 Additional personnel to support repair efforts and recovery functions will be added as necessary. Personnel reporting from off-site may initially report to the EOF/Alternate TSC, and then proceed to the TSC as plant/site conditions allow.

6.6.5 Site Emergency Manager

1. The assigned Site Emergency Manager will assume command-and-control functions and will be the top line manager responsible for the emergency. An assigned Site Emergency Manager is available 24 hours a day. The assigned Site Emergency Manager may assume command-and-control functions from the Shift Manager during an NUE if so requested by the Shift Manager.

2. The Shift Manager will transfer the Site Emergency Manager duties to the assigned Site Emergency Manager in accordance with EPPs. The Shift Manager resumes Control Room duties and reports to the Site Emergency Manager.

3. The Site Emergency Manager directs the onsite emergency effort, implements the applicable EPPs and, as appropriate, performs the following:

   - Assess and verify the situation and assure that appropriate mitigating efforts are being taken
   - Review initial event classification and reclassify as appropriate
   - Determine the necessity for evacuation of personnel onsite
   - IF a release has occurred, THEN make the necessary assessment of the off-site concentration of radioactivity resulting from a release
   - Ensure immediate and follow-up notifications are made which provide sufficient information on emergency classification, plant status, off-site dose projections or measurements, and issue recommendations for off-site protective actions to authorities responsible for off-site emergency measures

4. The following responsibilities are those of the Emergency Managers and may not be delegated. These responsibilities may be divided between the Site and Off-site Emergency Managers:

   - o Classification of the emergency
   - o Protective action recommendations
   - o Authorization for notification of off-site authorities
   - o Authorization of emergency exposure in excess of 10 CFR 20 limits

6.6.6 TSC Operations Coordinator

1. The TSC Operations Coordinator reports to the Site Emergency Manager and is responsible for the following:

   - o Supervise reactor plant operations, the Engineering Coordinator, and ENS Communicator
   - o Keep the Site Emergency Manager advised of plant conditions and operational manipulations

2. The TSC Operations Coordinator may supervise other positions as directed by WCGS procedures.

6.6.7 Engineering Coordinator

1. The Engineering Coordinator reports to the TSC Operations Coordinator and directs the activities of the Engineering Team to technically assess plant status and the severity of emergency conditions.

6.6.8 Engineering Team

1. The Engineering Team reports to the Engineering Coordinator. The Team evaluates current and historical plant parameters, assesses the severity of the emergency conditions and magnitude of fuel damage, and recommends corrective or preventive actions.

6.6.9 TSC Emergency Notification System (ENS) Communicator

1. The TSC ENS Communicator reports to the TSC Operations Coordinator and maintains communications with the NRC.

6.6.10 TSC Radiological Coordinator

1. The TSC Radiological Coordinator reports to the Site Emergency Manager and is responsible for preventing or minimizing direct exposure to, or ingestion/inhalation of, radioactive materials during a radiological emergency. Responsibilities are as follows:

   - o Monitoring Dose rates and dose projections
   - o Monitoring Radiological survey teams' results
   - o Assists the On-site Emergency Manager in the formulation of recommended protective actions
   - o Monitoring Personnel radiation exposures to ensure they are maintained in accordance with 10CFR 20 limits unless otherwise authorized by the Emergency Manager
   - o Provides radiological data and concerns to plant teams for the team briefs

2. The TSC Radiological Coordinator will transfer off-site duties to the EOF when the EOF is activated.

6.6.11 TSC Administrative Coordinator

1. The TSC Administrative Coordinator reports to and assists the Site Emergency Manager to ensure that emergency notifications are performed. The TSC Administrative Coordinator is responsible for logistical support in the areas of TSC personnel, Control Room, procurement and warehouse support, communications support and equipment repair services.

2. After EOF activation, the TSC Administrative Coordinator directs requests for logistical support beyond onsite staff capabilities to the EOF Administrative Coordinator.

6.6.12 TSC Team Director

1. The TSC Team Director reports to the TSC Maintenance Coordinator and provides advice on all matters concerning Emergency Response Team activities.

6.6.13 Maintenance Coordinator

1. The Maintenance Coordinator reports to the Site Emergency Manager and directs the Maintenance Assistant in the coordination of emergency team activities. The Maintenance Coordinator also directs the formation of teams to be assigned to search and rescue.

6.6.14 Operations Communicator

1. Provides data, progress and plant conditions from the Control Room via the Operations Recorders.

6.6.15 Additional Personnel

1. The following are examples of positions that are not needed for activation and operation of the TSC but supplement those personnel which are essential to an emergency response:

   - o Operations Recorder maintains the Operations Status Board current.
   - o Team Communicator reports to the Team Director and is responsible for communicating with Onsite Teams.
   - o Onsite Survey Team Technicians perform tasks as assigned by the Maintenance Assistant.
   - o Administrative Assistants perform facility accountability, assist the Emergency Manager, faxing and copying, log keeping, and Off-site notifications and communications as directed.
   - o Security Coordinator maintains a line of communications between the TSC and Security to cover security concerns.

6.7 Operations Support Center (OSC) Organization

6.7.1 Maintenance Assistant

1. The Maintenance Assistant reports to the Maintenance Coordinator and coordinates emergency repair and damage control activities, coordinates deployment of onsite teams, and coordinates the activities of the Maintenance Engineers.

6.7.2 Emergency Response Team (ERT)

1. The ERT personnel may be selected from Health Physics Technicians (Tech), Chemistry Tech, and Instrumentation and Control, Mechanical, or Electrical Maintenance. The ERT reports to the Maintenance Assistant and is responsible for repairs, surveys, sampling, analysis, and search and rescue.

6.7.3 Additional Personnel

1. The following are examples of positions that are not needed for activation and operation of the OSC but supplement those personnel which are essential to an emergency response.

   - o Chemistry Technicians perform emergency chemical sampling and provide post-accident sample analysis.
   - o Maintenance Planners develop repair plans for use by the emergency repair and damage control teams.
   - o Warehouse Support Personnel assist in locating and securing parts and equipment from the warehouse.

6.8 Emergency Operations Facility (EOF) Organization

6.8.1 EOF activation will be performed as soon as practical and within a goal of 90 minutes of a declaration of an Alert or higher Emergency.

1. The EOF is considered activated when the following positions are present, the Off-site Emergency Manager determines facility readiness, and declares the facility activated:

   - o Off-site Emergency Manager
   - o EOF Operations Coordinator
   - o EOF Administrative Coordinator
   - o EOF Radiological Coordinator
   - o EOF Facility Technician

2. The complete EOF organization is shown in FIGURE 4, EOF ORGANIZATION.

6.8.2 Off-site Emergency Manager

1. The Off-site Emergency Manager will assume the command-and-control functions and direct the emergency from EOF. An assigned Off-site Emergency Manager is available 24 hours a day.

2. The Off-site Emergency Manager is the official WCGS interface with government authorities. The Manager may discuss events in progress with the County and State personnel present in the EOF when making decisions concerning the emergency. Responsibilities include the following:

   a. Supports and provides resources or performs tasks as requested by the Site Emergency Manager

   b. Directs all WCGS personnel in the EOF

   c. Obtains personnel and coordinates the efforts of the following:

      - Emergency response personnel who perform off-site radiological surveys, plus any other personnel deemed useful for the emergency response effort

      - Outside contractors and vendors, such as consultants, laboratories under contract, the Nuclear Steam Supply System (NSSS) vendor, the Architect/Engineer, and regional utilities

      - Additional technical resources may be called in during the emergency for further support or shift assignment onsite.

   d. Coordinates with the Administrative Coordinator in the logistics effort to supply the plant with the necessary personnel and equipment

   e. Briefs WCGS Executive Management on matters related to the emergency

   f. Coordinates with the Onsite and Off-site Public Information Coordinators (PICs) in providing technical input for news statements

g. Ensure immediate and follow-up notifications are made which provide sufficient information on emergency classification, plant status, off-site dose projections or measurements, and issue protective actions recommendations to off-site authorities responsible for off-site emergency measures

h. Requests federal assistance through state officials per the State Plan

3. The following responsibilities are those of the Emergency Managers and may not be delegated. These responsibilities may be divided between the Site and Off-site Emergency Managers:

- o Emergency classification
- o Protective action recommendations
- o Authorization for notification of off-site authorities
- o Authorization of emergency exposure in excess of 10CFR 20

6.8.3 EOF Radiological Coordinator

1. The EOF Radiological Coordinator reports to the Off-site Emergency Manager and is responsible for radiological monitoring and dose assessment activities off-site. Responsibilities are as follows:

- o Directs and coordinates activities of the Dose Assessment Coordinator and staff
- o Assists the Off-site Emergency Manager in the formulation of recommended protective actions
- o Provides the PIC with an assessment of radiological conditions
- o Requests through the EOF Administrative Coordinator additional radiation monitoring equipment, instrumentation and Health Physics support personnel as necessary
- o Interfaces with State and County emergency response personnel who are assigned to the EOF regarding matters related to off-site radiological assessment

6.8.4 EOF Team Director

1. The EOF Team Director assumes responsibility for authorizing and supervising Off-site Monitoring Teams. The EOF Team Director directs Emergency Response Teams and advises the EOF Radiological Coordinator on radiological conditions encountered by the Teams.

   a. Off-site Monitoring Team authorization should be made promptly upon activation of the EOF.

   b. Monitoring teams are specially trained in field sampling techniques. Each team will be equipped with equipment capable of detecting and measuring radioiodine concentrations in the air at levels as low as 10^{-7} uCi/cc.

   c. County and State personnel may become part of the Emergency Response Teams and assist with off-site monitoring.

6.8.5 EOF Facility Technician

1. Reports to the EOF within a goal of 60 minutes of declaration of an Alert or higher classification to ensure the EOF is prepared and functional.

6.8.6 Dose Assessment Coordinator

1. Reports to the EOF Radiological Coordinator and is responsible for directing/assisting with dose projection and protective action recommendation activities.

2. Ensures the Radiological Status Board is maintained current.

6.8.7 Dose Assessment Technician

1. Reports to and is responsible for providing completed off-site dose projections to the Dose Assessment Coordinator.

6.8.8 HPN Communicator

1. The HPN Communicator reports to the EOF Radiological Coordinator and maintains communications with the NRC via the Health Physics Network (HPN) telephone.

6.8.9 EOF Operations Coordinator

1. Reports to and briefs the Emergency Manager on plant conditions and mitigative strategies.

6.8.10 EOF Administrative Coordinator

1. The Administrative Coordinator is responsible for coordinating, directing, and responding to requests from the ERO for administrative and logistical support. The techniques and procedures used during this effort are adapted from normal WCGS procurement practices. The Administrative Coordinator also ensures notifications to off-site authorities are made.

6.8.11 Representative At County

1. The Representative at the County is located in the County Emergency Operations Center in Burlington, KS, and reports to the Off-site Emergency Manager. The Representative responds to requests from County personnel for clarification or verification of data received from the TSC or EOF.

6.8.12 Additional Personnel

1. The following are examples of positions that are not needed for activation and operation of the EOF but supplement those personnel which are essential to an emergency response.

   - o Team Communicators communicate with Off-site Monitoring Teams.
   - o Operations Recorders maintain the Operations Status Board current.
   - o Administrative Assistants perform facility accountability, assist the Emergency Manager, faxing and copying, log keeping, and Off-site notifications and communications as directed.

6.9 Public Information Organization

6.9.1 The Public Information Organization is activated at an Alert or higher emergency declaration. Information released to the public during an NUE will be provided by Corporate Communications. If deemed necessary, the WC PIO can staff the Wolf Creek Public Information Facilities to assist in news releases during an NUE.

6.9.2 Wolf Creek Public Information Officer (WC PIO)

1. The WC PIO is the public voice for plant information. The WC PIO is responsible for ensuring the timely issuance of accurate information to the public and media during an emergency at WCGS. Public interaction may be as a formal news conference or a telephone call.

   a. The WC PIO coordinates with the County and State for information to be released to the public.

2. The WC PIO has overall responsibility for the Public Information Organization.

6.9.3 Wolf Creek Public Information Manager

1. The Wolf Creek Public Information Manager is located in the JIC and works closely with the WC PIO, Onsite PIC, Off-site PIC, News Writer, and Technical Support positions to ensure that information provided the public is timely and accurate.

2. The Wolf Creek Public Information Manager has responsibility for ensuring the Public Information Organization is activated and functions as directed in EPPs.

3. During a declared emergency the Public Information Manager determines and coordinates the activation of Rumor Control, Joint Information Clearinghouse, Media Center and the Phone Team. The Public Information Manager operates from the appropriate Joint Information Clearinghouse.

4. The complete Public Information organization is shown in FIGURE 5, PUBLIC INFORMATION ORGANIZATION.

6.9.4 Onsite Public Information Coordinator (PIC)

1. The Onsite PIC, located in the TSC, gathers and transmits technical information to the Wolf Creek Public Information Officer for use in news statements.

6.9.5 Off-Site Public Information Coordinator (PIC)

1. The Off-Site PIC, located in the EOF, gathers and transmits information related to the health and safety of the public to the Wolf Creek Public Information Officer for use in news statements.

6.9.6 Media Center Manager (MC Manager)

1. The MC Manager is located at the Media Center and reports to the WC PIO. Responsibilities include set-up of the Media Center, leadership for the Media Registrar, AV Support, and Media Liaison and management of the media news conferences. The Media Center Manager maintains contact with the Joint Information Clearinghouse to provide news conference schedules.

6.9.7 Media Liaison

1. Media Liaison is located in the Media Center and reports to the MC Manager. Responsibilities include managing the media crowd at the Media Center and assisting the media with registration and facility orientation, providing general Wolf Creek background information or approved emergency-related information, arranging individual interviews, and announcing and coordinating scheduled news conferences.

6.9.8 News Writer

1. The News Writer reports to and provides support for the WC PIO. The News Writer provides support to the PIO including: answering telephones, writing and distributing news statements. The News Writer maintains a chronological log of the events and news statements.

6.9.9 Phone Team Manager

1. The Phone Team Manager reports to the WC PIO and coordinates the rumor control activities of the Phone Team.

6.9.10 Technical Support

1. The Technical Support staff discusses technical details of the news statement with EOF staff to ensure accuracy, updates the status log, maintains the media status board and provides technical interpretation for the Wolf Creek, Coffey County, and State of Kansas Public Information Officers. Technical Support gathers information from the Emergency Facilities to communicate plant, health and safety issues to the public.

6.9.11 Representative at the State

1. The Representative at the State is located in the Kansas State Emergency Operations Center in Topeka, KS, and reports to the WC PIO. The Representative responds to requests from State personnel for clarification or verification of information pertaining to Wolf Creek.

6.9.12 Additional Personnel

1. The following are examples of additional personnel used to fill ERO positions such as clerical, log keeping, or status board posting. Staffing of these positions does not affect the activation of the facility.

   - Media Center Registrar monitors access to the Media Center, records news conference attendance, provides media packets, provides directions for telephone use and work space information to the media representatives.

   - Audio/Visual Support records on video and audio tape the proceedings of news conferences presented in the Media Center.

   - Information Messenger performs clerical and administrative duties at the direction of the Public Information Manager.

   - The Phone Team may make initial media notifications at PIO discretion, addresses media and public questions to the extent possible and reports rumors or misinformation to the Phone Team Manager.

   - The Media Monitoring Team notifies the Phone Team Manager of any rumors or misinformation heard or observed from their monitoring of the media.

6.10 Local Off-site Organizations

6.10.1 The Coffey County Contingency Plan for Incidents Involving Commercial Nuclear Power describes the authorities, responsibilities, and agreements to which various county agencies are a party in their response to emergencies at WCGS. Information is provided therein about the various agencies' interrelationships and support roles provided to WCGS.

- The updated evacuation time estimate (ETE) report contains the evacuation times for each subzone. (Reference 3.1.12)

6.10.2 Coffey County Commissioners

1. The Coffey County Board of Commissioners maintains the executive authority and responsibility for planning and coordinating the county response. They have delegated responsibilities and tasks to the local support agencies and have established operating procedures.

2. After declaring a State of Local Disaster Emergency, the Chairman of the Coffey County Commissioners is responsible for making the decision to activate the alert and notification system. Emergency authority, as stated in County Plan, is given in an established line of succession.

3. If a State of Emergency has not been declared, after receipt of notification and in accordance with the County Plan, the Chairman decides which protective actions would be appropriate.

   - When a protective action is decided upon, the County may notify the State to activate EAS or they may activate EAS.

6.10.3 Coffey County Sheriff's Office

1. The Coffey County Sheriff's Office provides local notification, access control, and law enforcement support in accordance with the Coffey County Plan.

2. If time does not permit, or if he is unable to contact the Chairman or other members of the County Emergency Response Organization, the County Sheriff has the authority to make protective action decisions based upon recommendations by WCGS.

3. The County Dispatcher may contact the Kansas Division of Emergency Management to activate EAS or they may activate EAS.

4. Specific services provided by the Coffey County Sheriff's Office include:

   - Perform notifications as defined within the County Plan and associated implementing procedures
   - Provide a 24 hour per day manning of communications links between the County and WCGS, and between the County and State
   - Implement off-site protective actions as necessary and as specified in the County Plan implementing procedures
   - Initiate warning and initial notification of the population
   - Direct the evacuation of specific subzones of the EPZ upon the decision to evacuate
   - Provide traffic control and roadblocks per implementing procedures
   - Obtain additional assistance as necessary to secure the evacuated areas
   - Control access to the County EOC

6.10.4 Coffey County Fire District #1 (CCFD)

1. Contractual arrangements have been made with the Board of Trustees of Fire District No. 1, Coffey County, KS, for the provision of fire fighting support. Services contracted are summarized in the Letter of Agreement and maintained in an Emergency Planning file.

2. The WCGS Fire Brigade Leader is also responsible for directing all fire fighting activities onsite. Once onsite, Fire District members and equipment shall be escorted by Security.

6.10.5 Off-site Medical Treatment

1. Coffey County Hospital and Newman Memorial Hospital each have developed emergency procedures to provide guidance in the rendering of medical treatment to contaminated patients.

2. Coffey County Hospital, located in Burlington, KS, approximately 9 road miles from the WCGS site, has agreed to provide aid to injured/contaminated personnel.

3. Newman Memorial Hospital serves as a backup to Coffey County Hospital and is located in Emporia, KS, approximately 40 miles from WCGS.

4. Contaminated injured personnel transported from WCGS to off-site medical facilities are attended by personnel qualified in radiological practices. Once the patient(s) has been stabilized, WCGS personnel survey patient(s), attending personnel, vehicles, and equipment to ensure they have been decontaminated in accordance with WCGS, County, or State procedures.

6.10.6 Coffey County Emergency Medical Service (EMS)

1. Coffey County EMS provides medical assistance and transports victims to medical facilities for personnel requiring treatment for injuries, exposure to radiation, and contamination. WCGS notifies the Ambulance Service by telephone or through the Coffey County Sheriff's Office.

2. If conditions warrant, any vehicle at WCGS may be used to transport affected personnel.

6.10.7 Radiological Emergency Assistance Center/Training Site (REAC/TS)

1. REAC/TS maintains a 24 hour Hospital Disaster Network. Consultation is available for medical emergencies involving radiologically contaminated patients.

6.11 State Organizations

6.11.1 The Governor, by law, is the Chief Executive Officer of the State of Kansas and is responsible for the safety and well-being of all citizens within the State. The State Plan describes the responsibilities of local, federal, state, and volunteer agencies during nuclear emergencies. Upon declaration of a State of Disaster Emergency the State has primary responsibility for responding to an off-site nuclear emergency. Activation of the State EOC, located in the lower level of the State Defense Building, Topeka, KS, is the responsibility of the Governor or authorized representatives, depending on the nature of the emergency. The Kansas Division of Emergency Management, Technological Hazards Section, provides overall coordination as the responding state agency during a Fixed Nuclear Facilities Incident.

6.11.2 The State of Kansas Radiological Emergency Response Plan for Nuclear Facilities describes in detail, the authorities, responsibilities, and agreements to which various state agencies of their response to emergencies at WCGS. Reference to this document is made for detailed information on each agency's interrelation and support role provided to WCGS.

1. Upon declaration of an SAE or GE representatives of Kansas Division of Emergency Management (KDEM) and Kansas Department of Health and Environment (KDHE) go to the EOF. They act as the interface between WCGS, the County, and the State.

6.11.3 Kansas Division of Emergency Management (KDEM)

1. The KDEM provides the following assistance:

   a. Evaluates information presented by WCGS to decide off-site protective actions

   b. Coordinates nuclear incident response planning, training, and notification. Activities include:

      - Notification of KDHE
      - Notification of Key federal and state agencies
      - Notification of the Governor's Office
      - Provides radiological monitoring coordination
      - Requests federal assistance and coordinates federal and state support on behalf of affected areas
      - Provides 24 hour per day point of contact to receive notification
      - Activates the State EOC
      - Activates the Kansas Emergency Alert System

6.11.4 Kansas Department of Health and Environment (KDHE)

1. The KDHE provides assistance as described below:

   - Acts as the lead state agency for operational radiological emergency response
   - Conducts radiological monitoring in affected areas
   - Provides radiological advice to hospitals
   - Develops and establishes State PAGs
   - Provides information and guidance to the public about protective actions, via the KDEM
   - Assesses off-site contamination of the environment

- Provides technical guidance and coordination in recovery activities
- Supports the development and conduct of radiological response training
- Reviews, evaluates, and maintains dosimetry records for non-licensee emergency workers and other affected individuals

6.11.5 Kansas Highway Patrol (KHP)

1. The KHP provides communications and notification support including backup notification means for the following:
   - Coffey County Sheriff's Office
   - KDEM, Technological Hazards Section
   - The Governor's Office
2. The KHP augments local law enforcement in securing the area and establishing evacuation routes and providing traffic control.
3. The KHP provides self-support radiological monitoring.
4. The KHP maintains emergency communications systems 24 hours per day.

6.11.6 Kansas National Guard

1. The Kansas National Guard may be directed by the Governor to provide assistance as needed such as the following:
   - Evacuation of communities
   - Area security
   - Media Center Security

6.11.7 Kansas Department of Transportation (KDOT)

1. KDOT provides assistance as follows:

   - o Provides emergency traffic barriers and signs
   - o Supplements emergency traffic control
   - o Supplies construction equipment
   - o Provides communications support

6.12 Federal Organizations

6.12.1 Should an emergency situation or accident occur at WCGS, notification and reports must be made to various federal agencies and organizations, and requests for assistance may also be made.

6.12.2 Federal Emergency Management Agency (FEMA)

1. FEMA is the lead agency supporting implementation of the state and local emergency plans. Region VII FEMA response time is estimated to be four hours.

6.12.3 Department of Energy (DOE)

1. The DOE Radiological Assistance Program provides monitoring assistance and radiological consultation to the KDHE. The DOE provides assistance under the Nuclear/Radiological Incident Annex to the National Response Framework and responds to authorized requests for assistance by the KDHE. It is expected that initial responders, to assist with off-site radiological monitoring, will arrive within 8 hours. Full Federal response (FRMAC) is expected within 48 hours.

6.12.4 Nuclear Regulatory Commission (NRC)

1. The NRC provides advice to other federal, state, and local agencies on the radiological health consequences of various emergency protective actions. The NRC requires notification and reports as indicated in ATTACHMENT H, REPORTING OF INCIDENTS PER 10CFR20 and as specified in the WCGS Technical Specifications. NRC Region IV response time is estimated to be 12 hours.

6.12.5 Licensee resources available to support the federal response include the following:

- o Space and equipment in the TSC and EOF provided for key federal personnel
- o Telecommunications equipment at these centers is available to federal personnel for use
- o Parking space adjacent to the EOF provides an area for the location of federal response vehicles, with power and sanitary services available at the EOF
- o Open fields west of the parking lot at the EOF provide access for helicopters
- o Coffey County Airport is available for air traffic

6.13 Additional Support Agencies

6.13.1 Vendor and Architect/Engineers (A/E)

1. NSSS supplier, Westinghouse, is the chief vendor who may be involved with emergency response for WCGS. Westinghouse has emergency response plans which are activated upon notice and is expected to provide the following services:
   - o Personnel with expertise in various areas
   - o Technical analysis
   - o Operational analysis
   - o Accident/transient analysis
   - o Recommendations

6.13.2 Regional Utility Support

1. WCGS shares the Standardized Nuclear Unit Power Plant System (SNUPPS) power-block design with the Union Electric Callaway Plant. Because of this design concept and similarity with the WCGS layout, assistance from Union Electric is possible. A specific mutual aid agreement between WCGS and Union Electric Company has been established. While this assistance may be available within a short period of time, it shows greatest promise in the case of a prolonged emergency where extended, around the clock coverage is required. The Site Emergency Manager may authorize the temporary use of this resource, should staff augmentation be necessary. Union Electric Company is a signatory of the INPO FIXED FACILITY EMERGENCY RESPONSE VOLUNTARY ASSISTANCE AGREEMENT.

6.13.3 Institute of Nuclear Power Operations (INPO)

1. WCGS has signed the INPO FIXED FACILITY EMERGENCY RESPONSE VOLUNTARY ASSISTANCE AGREEMENT. This agreement is by and among electric utilities which have responsibility for the construction and operation of commercial U.S. nuclear power plants. Assistance may be requested from any of the signatory companies in the form of technical and administrative aid or personnel, facility, or equipment resources. Requested assistance is rendered according to the agreement.

6.13.4 American Nuclear Insurers (ANI)

1. ANI is notified at emergency classifications of Alert or higher. ANI is available to provide insurance services as necessary.

6.14 Plant Monitoring

6.14.1 Nuclear Plant Information System (NPIS)

1. The integration and display of selected and critical data is performed by NPIS which is a non-safety, non-Class 1E system. Isolation is provided to ensure that NPIS does not degrade the performance of safety system equipment or displays.

2. NPIS provides data storage and recall capability.

3. Certain parameters are also transmitted to the NRC Operations Center via the Emergency Response Data System (ERDS) link of NPIS. ERDS is activated through NPIS within 60 minutes of an Alert or higher classification.

4. The NPIS computer feeds key plant parameters to individual terminals in the Control Room, TSC, and via *RTime Viewer to the EOF which display data identical in accuracy, resolution, and reliability. Support personnel may assist the Control Room staff to analyze and diagnose plant abnormalities so that mitigative action may be taken and then monitored.

5. The Safety Parameter Display System (SPDS) provides for continuous indication of plant parameters or derived variables representative of the safety status of the plant. The primary function of the SPDS is to aid the user in the rapid detection of abnormal operating conditions. As a plant safety information and diagnostic tool, SPDS concentrates on a minimum set of plant parameters from which the plant safety status can be assessed.

6.14.2 Onsite Radiological Monitors

1. Process monitors monitor the radiation intensity of materials within plant systems. These monitors continuously measure, indicate and record the radioactive material concentrations located within systems being monitored. Each monitor includes an adjustable alarm to provide indication of a significant change or the existence of a concentration of radioactive material above pre-selected values. The USAR, Chapter 11.5, includes a listing and range of plant monitors.

2. The Area Radiation Monitoring System monitors provide information about radiation intensity at specific plant locations. These monitors provide the following:

   a. Warnings of excessive gamma radiation levels in areas where nuclear fuel is stored or handled

   b. Control Room personnel with a continuous indication of gamma radiation levels at selected locations within the various plant buildings

c. Assistance in detecting unauthorized or inadvertent movement of radioactive material in the plant, including the radwaste area

d. Supplementation of other systems, such as process radiation monitoring or leak detection, in detecting abnormal migrations of radioactive material

e. Local alarms to warn personnel in the area

3. Effluent monitors provide information about the concentration of radioactive material in plant effluent pathways. Each significant effluent pathway from the plant includes an effluent monitor to enable the quantification of the radioactive material concentration exiting the plant.

6.14.3 Meteorological Monitoring System

1. The Meteorological Monitoring System is composed of a 90-meter instrument tower and a temperature controlled shelter at the base of the tower housing associated instrumentation and equipment.

2. The function of the meteorological system is to monitor and record meteorological conditions.

3. Information provided by instruments at the meteorological tower is available from the NPIS computer system.

4. Time interval measurements are used in calculating 15-minute averages for all parameters.

5. When needed, Meteorological data can be obtained from the National Weather Service.

6.14.4 Seismic Monitoring System

1. The seismic warning panel in the Control Room provides local visual and audible indication when a seismic event has occurred.

6.14.5 Hydrologic Monitoring

1. Hydrologic monitoring is not required as WCGS is a "dry site" as defined by Regulatory Guide 1.102. The plant site is located above the design basis flood level.

6.14.6 Fire Protection

1. WCGS is protected by an independent fire protection system consisting of two subsystems, a detection/alarm system and a suppression system.

2. Activation of the fire systems results in an audible alarm throughout the plant. Alarms are also displayed in the Control Room.

6.14.7 Laboratory Facilities

1. A radiochemistry (hot) laboratory, radwaste laboratory, and turbine building chemistry laboratory are located in the power block. The chemistry shop laboratory is located in the Walter P. Chrysler Building. Further information on onsite laboratory equipment can be found in USAR, Chapter 12.5.

2. The environmental laboratory on site may be used for processing of routine and emergency field samples. The Kansas Health and Environmental Laboratory in Topeka, KS, is available to further augment the processing of emergency samples.

3. Private laboratories under contract to WCGS or laboratories of neighboring utilities who are signatories of the INPO Voluntary Assistance Agreement may be considered for use.

6.15 Emergency Supplies

6.15.1 Emergency supplies include protective, communications, and radiological monitoring equipment, check sources, and other supplies. The EPPs list emergency supplies and their locations.

6.15.2 Emergency supplies are maintained, inventoried, and inspected on a quarterly basis in accordance with EPPs. The EPPs contain an inventory list of WCGS equipment for emergency supplies. This equipment may be augmented by other onsite equipment.

6.15.3 Instruments are calibrated in accordance with WCGS Health Physics Procedures. For any items removed from the emergency supplies for calibration or repair, an operable equivalent instrument is used to replace it. Sufficient quantities of spare instruments/equipment are onsite to provide replacements.

6.16 Communications

6.16.1 Communication Equipment

1. Telephones provide primary communications contact with the State and County EOCs. The on-site system in the Olive Beech Building and the off-site system in EOF are powered by their own battery and charger. The battery will supply the system if the charger fails.

   a. The Emergency Telecommunications System (ETS) is used for NRC communications.

   b. Trunk lines are available for communications with outside agencies.

   c. Cell phones or other comparable equipment are used as a backup means of communications with joint radiological monitoring teams.

2. Radio communications provide backup communications with the State and County EOCs. Fixed AC-powered transmitter/receiver units and a number of portable and hand-held units are also capable of providing fixed and mobile communications to joint radiological monitoring teams.

   a. Radio communication is the primary communication method for the joint radiological monitoring teams.

3. A paging system is used for initial notification of key personnel. Pager coverage is provided in and around the cities of Burlington, Emporia, Topeka, Ottawa and Lawrence.

6.16.2 Communication Dissemination

1. The methods of employee communications may be employee meetings, announcements, or literature handouts.

2. The Public Information Organization is responsible for interfacing with the media. Communication between WCGS and media organizations are performed in accordance with EPPs.

3. Annually, WCGS offers the news media with the following information:

   - o Information concerning the emergency plan
   - o Information concerning radiation
   - o Facilities available for media
   - o Points of contact for statements of public information
   - o Differences between normal and emergency plant operations

4. Standardized public announcements for broadcast during an emergency have been written by the state, county, and WCGS and are found in the State Plan.

5. WCGS, state, and local emergency organizations provide members of the public, including transients, public education information on how they are notified and what their initial actions should be during an emergency.

   a. Emergency planning information is provided within local telephone directories. The information, developed jointly by WCGS, Coffey County and the State of Kansas, is distributed to residences of the EPZ.

   b. Information includes educational facts on radiation, protective measures, special needs of the handicapped and the points of contact for additional information.

   c. An annual mail-out to the public provides information regarding operation of Tone Alert Radios.

6. Emergency planning information, displayed on information boards, is provided for transients in the public use areas of John Redmond Reservoir (JRR), Coffey County Lake (CCL), and other WCGS controlled areas. Transients have access to emergency plan information within motel rooms and telephone books.

6.17 Emergency Plan Training

6.17.1 WCGS has developed an emergency preparedness training program which meets the requirements of 10CFR50, Appendix E, Section IV. F.

6.17.2 The Superintendent Emergency Planning ensures required training is provided for ERO personnel in accordance with plant procedures.

6.17.3 The Superintendent Emergency Planning ensures corrective actions for any Emergency Planning weakness or deficiencies identified are initiated and corrected using the WCGS corrective action process.

6.17.4 Personnel receive general RERP training as a portion of Plant Access Training prior to receiving unescorted access to WCGS.

6.17.5 Initial and re-qualification training is provided for personnel on the ERO. This training may be in the form of self study, class room training, drills, tabletops, or any combination of these.

1. Position specific training is provided for personnel filling positions in the following areas:

   - o Managers/Coordinators of the emergency
   - o Personnel responsible for accident assessment
   - o Radiological monitoring teams
   - o Fire brigade members
   - o Emergency response teams
   - o Medical support personnel
   - o Security personnel
   - o Support personnel

2. Critiques are performed after each training class to identify weak or deficient areas.

6.17.6 Where Letters of Agreement exist between WCGS and local agencies and for each off-site response organization's emergency support role, training is offered annually. Training is also offered to the participants in the Interlocal Agreement between Coffey County and host county Lyon.

1. This training consists of an orientation to plant operations and site access procedures, basic radiation protection and monitoring information, procedures for notification, an overview of the ERO duties and activities, and training materials associated with performance of their expected roles.

6.17.7 Drills are considered part of the Emergency Plan Training Program. Periodic drills conducted between the biennial exercise ensure that the ERO is capable of executing the principal functional areas of emergency response including activities such as management and coordination of emergency response, accident assessment, event classification, notification of offsite authorities, assessment of the onsite and offsite impact of radiological releases, protective action decision making, plant system repair and mitigative action implementation.

1. State and County participation in drills will be allowed if they so desire.

6.18 Emergency Plan Drills

6.18.1 Annual communication drills between WCGS, State and County EOCs, and field assessment teams ensure that contact can be made and that messages are comprehended.

1. Monthly communication tests verify communications with the local County and State authorities. Communications tests are made with the NRC Headquarters via the Emergency Telecommunications System (ETS). These tests are performed in accordance with EPPs.

6.18.2 Fire drills are conducted in accordance with plant administrative procedures.

6.18.3 Annual medical emergency drills include transportation and treatment of simulated contaminated individuals by ambulance and off-site medical treatment facilities.

6.18.4 Annual radiological monitoring drills include collection and analysis of sample media, field activities, and provisions for communications and record keeping.

6.18.5 Semi-annual Health Physics drills involve response to and analysis of simulated elevated airborne and liquid samples and direct radiation measurements in the environment.

6.18.6 Each calendar quarter, a callout drill is conducted to verify the operability of the notification system.

6.18.7 Critiques are conducted following each drill to identify and correct noted weaknesses and deficiencies.

6.18.8 Terrorist-based-event drills will be conducted as directed by FEMA and the NRC. **[Commitment Step 3.2.4]**

6.19 Emergency Planning Exercises

6.19.1 In accordance with 10CFR50 Appendix E, Section IV.F, emergency exercises will test the adequacy of timing and content of implementing procedures and methods, test emergency equipment and communication networks, test the public notification system, and ensure that ERO personnel are familiar with their duties.

6.19.2 Exercises will be conducted biennially to test the on-site and off-site emergency plans. Exercises ensure that the ERO is capable of executing the principal functional areas of emergency response including activities such as management and coordination of emergency response, accident assessment, event classification, notification of offsite authorities, assessment of the onsite and offsite impact of radiological releases, protective action decision making, plant system repair and mitigative action implementation.

6.19.3 To meet NRC and FEMA requirements, the exercises are varied so as to test, at least once every eight years, all major components of the WCGS, State, and County plans and response organizations. The State and County actively participate in these exercises.

6.19.4 Each scenario variation shall be demonstrated at last once during the eight year exercise cycle and shall include, but not be limited to, the following:

1. Exercises should be conducted under various weather conditions.

2. Hostile action directed at the plant site involving the integration of offsite resources with onsite response.

3. An initial classification of or rapid escalation to a Site Area Emergency or General Emergency.

4. No radiological release or an unplanned minimal radiological release that requires the site to declare a Site Area Emergency, but does not require declaration of a General Emergency.

5. Implementation of strategies, procedures and guidance developed under 10 CFR 50.54(hh)(2).

6. Start a drill or exercise between 6:00 p.m. and 4:00 a.m. Some drills or exercises should be unannounced.

7. Large radiological release requiring ingestion pathway protective actions beyond the 10 mile EPZ.

6.19.5 Terrorist-based-event exercises will be conducted as directed by FEMA and the NRC. **[Commitment Step 3.2.4]**

6.19.6 Designated observers from federal, state, local governments, and WCGS observe the required exercises. Certain of these observers also evaluate the exercise.

1. The Superintendent Emergency Planning has the lead responsibility for ensuring corrective actions associated with emergency planning are initiated.

2. Critiques are conducted following each exercise to identify and correct noted weaknesses and deficiencies.

6.19.7 Prior to an exercise a scenario package is prepared which contains the following:

- Basic objective of each exercise and appropriate evaluation criteria that support demonstration of key skills in principle functional areas
- Simulated events
- Dates, time periods, places, and participating organizations
- Time schedule of all initiating events
- Descriptive scenario addressing the conduct of the exercise which should include public information activities, off-site fire department assistance, simulated casualties, rescue of personnel, use of protective clothing and radiological monitoring teams
- Description of the arrangements for, and advance materials to be provided to official observers

6.19.8 Records of exercises conducted during the eight year cycle shall be maintained that document the content of scenarios used to comply with scenario variation requirements.

6.19.9 The exercise scenario shall be submitted to the NRC under 10 CFR 50.4 at least 60 days prior to the evaluated exercise.

6.19.10 Remedial exercises will be conducted for exercises which do not satisfactorily test the emergency response plan as determined by FEMA and the NRC.

6.20 Emergency Plan And Procedures Administrative Controls

6.20.1 The Quality Assurance Organization is responsible for assuring that a review of the WCGS Emergency Preparedness Program will be performed, at least once every twelve months, in accordance with 10CFR 50.54(t).

1. Personnel performing this review will have no direct responsibility for implementation of the Emergency Preparedness Program.

2. The review shall evaluate interfaces with state and local governments, licensee drills, exercises, capabilities, procedures and emergency facilities.

3. The results of the review are reported to owner representatives and WCGS Senior Management and shall be retained for at least five years.

4. Correction of review findings are evaluated and implemented using normal WCGS procedures.

5. The applicable portions of the review shall be made available to the State and local governments.

6.20.2 The Superintendent Emergency Planning ensures the coordination and documentation of RERP reviews and revisions and the RERP distribution. The RERP is revised annually to incorporate changes identified during drills, exercises and the 10CFR 50.54(t) review.

1. The RERP and approved changes are distributed to all organizations and individuals with responsibility for implementation of the RERP.

6.20.3 The Superintendent Emergency Planning ensures emergency planning personnel are properly trained.

6.20.4 Action items required to be performed in a time period are allowed a 1.25 times frequency grace period to complete the item.

6.21 Recovery Plan

6.21.1 The Recovery Plan is activated in a progressive manner when the Site, if EOF not activated, or Off-site Emergency Manager determines stabilized plant conditions warrant the transition of the emergency response efforts to the recovery phase.

6.21.2 IF a General Emergency has been reached, THEN NRC and KDEM concurrence shall be obtained prior to downgrading.

6.21.3 The EPPs provide the general plans for reentry and recovery and describe the means by which decisions to relax protective measures are reached.

1. Evaluation of the status of the three fission product barriers is used for de-escalation. As the situation improves and barriers are restored, the next lower level of event may be declared.

2. De-escalation may also occur if conditions have stabilized such that the potential for re-escalation to a higher level has been removed and a controlled situation exists. A declaration of de-escalation is provided by the Emergency Manager based on known information and recommendations of the ERO.

3. Guidelines are provided for Reentry Team(s) to perform surveys and monitoring activities to be employed for initial reentry.

6.21.4 During the recovery process the normal procedures employed for configuration control, reporting, interfaces with regulatory agencies and support groups, exposure control, environmental monitoring, and procurement of supplies and services shall be utilized.

6.21.5 The Recovery Plan utilizes the necessary technical, administrative, managerial and support personnel that may be required for the recovery phase of emergency response, as determined by Site or Off-site Emergency Managers. The responsibilities and functions of the Emergency Managers and staff are detailed in the EPPs.

7.0 RECORDS

7.1 None

8.0 FORMS

8.1 APF-06-002-01, EMERGENCY ACTION LEVELS

- END -

ATTACHMENT A
(Page 1 of 1)
EFFECTIVE 10-MILE EPZ POPULATION

Significant Population Centers	Approximate Population	Subzone	Distance (miles) And Direction From The Site To Population Center
Burlington, KS	2,674	SW-1	3.5 Southwest
New Strawn, KS	394	W-1	3.4 West-Northwest
Waverly, KS	592	NE-2	11.5 North-Northeast
LeRoy, KS	561	SE-3	11.1 South-Southeast
Aliceville, KS	40	SE-2	9.3 Southeast
Ottumwa, KS	20	NW-1	6.8 West-Northwest
Sharpe, KS	10	N-1	2.4 North
Jacob's Creek	70	W-2	10.0 West

The city population numbers were taken from the **2010** census.

- END -

ATTACHMENT B
(Page 1 of 2)
SUBZONE EVACUATION TIMES

B.1 Table B.1 lists each subzone and the population in that subzone.

TABLE B.1
POPULATION BY SUBZONE

Evacuation Subzone	Evacuation Zone	Population
Center (CTR)	0 - 2	132
North-1 (N-1)	2 - 5	27
Northeast-1 (NE-1)	2 - 5	48
East-1 (E-1)	2 - 5	62
Southeast-1 (SE-1)	2 - 5	57
South-1 (S-1)	2 - 5	45
Southwest-1 (SW-1)	2 - 5	2,854
West-1 (W-1)	2 - 5	480
Northwest-1 (NW-1)	2 - 5	112
North-2 (N-2)	5 - 10	163
Northeast-2 (NE-2)	5 - 10	682
Northeast-3 (NE-3)	5 - 10	115
East-2 (E-2)	5 - 10	54
Southeast-2 (SE-2)	5 - 10	124
Southeast-3 (SE-3)	5 - 10	662
Southeast-4 (SE-4)	5 - 10	45
South-2 (S-2)	5 - 10	81
Southwest-2 (SW-2)	5 - 10	137
West-2 (W-2)	5 - 10	167
Northwest-2 (NW-2)	5 - 10	149

B.2 Total Coffey County population equals 8,601 persons (2010 census). Effective 10-Mile Emergency Planning Zone Subtotals are as follows:

- Effective 0 - 2-mile zone = 8 persons
- Effective 2 - 5-mile zone = 3,345 persons
- Effective 5 - 10-mile zone = 2,843 persons
- Effective 0 - 10-mile zone = 6,196 persons

B.3 Table B.2 lists evacuation confirmation time parameters.

TABLE B.2
EVACUATION CONFIRMATION TIME PARAMETERS

EPZ Location	Miles Traveled	Number of Houses	Speed Between Houses	Effort in Vehicle	Vehicles Assumed Available	Confirmation Time
Burlington	36	1,183	5 mph	105 Hrs	11	9.5 Hrs
New Strawn	3	229	5 mph	20 Hrs	3	6.6 Hrs
LeRoy	9	289	5 mph	43 Hrs	5	8.6 Hrs
Waverly	7	280	5 mph	33 Hrs	4	8.3 Hrs
Remaining EPZ*	289	649	30 mph	80.5 Hrs	8	10.3 Hrs

* Includes the evacuation confirmation of the U.S. Army Corps of Engineers areas at John Redmond Reservoir, Coffey County Lake, and the U.S. Fish and Wildlife Service area north of the Neosho River.

ATTACHMENT B
(Page 2 of 2)
SUBZONE EVACUATION TIMES

B.4 Coffey County has Letters of Agreement or Mutual Aid Agreements with surrounding medical transport groups and the Coffey County Public Transportation to assist with transportation for non-ambulatory persons. For all transportation-dependent people, including the non-ambulatory occupants of the Burlington Life Care Center, Sunset Manor Nursing Home, and the Coffey County Hospital, an evacuation time of 2.5 hours is estimated using area resources.

B.5 Tables B.3 and B.4 list the 10-mile evacuation times for average and adverse weather conditions.

TABLE B.3
10-MILE EVACUATION TIMES
FOR **AVERAGE** WEATHER
CONDITIONS (HOURS)

Subzone	Effective 10-mile
CTR	1:20
CCL	1:20
JRR	1:20
N-1	1:30
NE-1	1:20
E-1	1:25
SE-1	1:25
S-1	1:30
SW-1	1:45
W-1	1:45
NW-1	1:45
N-2	1:45
NE-2	1:40
NE-3	1:30
E-2	1:35
SE-2	1:35
SE-3	1:45
SE-4	1:40
S-2	1:45
SW-2	1:50
W-2	1:50
NW-2	1:40

TABLE B.4
10-MILE EVACUATION TIMES
FOR **ADVERSE** WEATHER
CONDITIONS (HOURS)

Subzone	Effective 10-mile
CTR	2:00
CCL	2:00
JRR	2:00
N-1	2:15
NE-1	2:00
E-1	2:00
SE-1	2:00
S-1	2:15
SW-1	2:25
W-1	2:25
NW-1	2:25
N-2	2:20
NE-2	2:20
NE-3	2:05
E-2	2:10
SE-2	2:10
SE-3	2:25
SE-4	2:20
S-2	2:25
SW-2	2:30
W-2	2:25
NW-2	2:25

- END -

ATTACHMENT C
(Page 1 of 8)
CROSS REFERENCE BETWEEN NUREG 0654, RERP, & WCGS PROCEDURES

0654 Section	RERP Section	Comments	Procedure
A. - ASSIGNMENT OF RESPONSIBILITY (Organization Control)			
1.a	6.5, 6.6, 6.8, 6.9	WCGS onsite and off-site organizations	EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS EPP 06-004, PUBLIC INFORMATION ORGANIZATION
1.a	6.10, 6.11, 6.12, 6.13	Outside organizations	
1.b	6.5 - 6.13		
1.c	FIGURE 6		
1.d	6.5, 6.6, 6.8, 6.9		EPP 06-001, CONTROL ROOM OPERATIONS EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
1.e	6.5.2	Notifications are made from the control room, at the direction of the Site Emergency Manager.	
2.a & 2.b	N/A		
3.	ATTACH. G		
4.	6.8.2	Off-site Emergency Manager	EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
	6.6.11, 6.8.10	Administrative Coordinators	EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
B. - ONSITE EMERGENCY ORGANIZATION			
1.	6.5, Figure 2		EPP 06-001, CONTROL ROOM OPERATIONS
2.	6.5.2	Site Emergency Manager	EPP 06-001, CONTROL ROOM OPERATIONS
3.	5.1.1, 5.2.1, 6.5.2, 6.6.5, 6.6.5.1, 6.8.2	Transfer of control from the Shift Manager to the Site Emergency Manager.	EPP 06-001, CONTROL ROOM OPERATIONS EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS

ATTACHMENT C
(Page 2 of 8)
CROSS REFERENCE BETWEEN NUREG 0654, RERP, & WCGS PROCEDURES

0654 Section	RERP Section	Comments	Procedure
B. - ONSITE EMERGENCY ORGANIZATION			
4.	6.5.2, 6.6.5, 6.8.2	Responsibilities of the Shift Manager, Site Emergency Manager, Off-site Emergency Manager	EPP 06-001, CONTROL ROOM OPERATIONS EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
5	6.5, 6.6, 6.7, 6.8, 6.9	Major ERO positions and their functions	EPP 06-001, CONTROL ROOM OPERATIONS EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
6.	6.5, 6.6, 6.7, 6.8, 6.9, Fig. 5 & 6	Interfaces between WCGS and outside organizations	
7a.	6.8.11	Administrative Coordinator	EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
7b.	6.21	Recovery Plan	EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
7c.	6.8.2	Duty Emergency Manager	EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
7.d	6.9	On-site & Off-site Public Information Coordinator & Wolf Creek Public Information Officer	EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS EPP 06-004, PUBLIC INFORMATION ORGANIZATION
8.	6.13	Specify contractors / organizations available on request	
9.	6.10	Identify local support agencies	
C. - EMERGENCY RESPONSE SUPPORT AND RESOURCES			
1.a	6.8.2	Persons authorized to request assistance	
1.b	6.12	Expected Federal resources	
1.c	6.4.1, 6.4.2, 6.4.4, 6.12.5	Space is provided for NRC personnel in the Control Room, TSC, and EOF. The EOF also has limited space for state and local personnel.	
2a.	N/A		
2.b	6.8.12		

ATTACHMENT C
(Page 3 of 8)
CROSS REFERENCE BETWEEN NUREG 0654, RERP, & WCGS PROCEDURES

0654 Section	RERP Section	Comments	Procedure
C. - EMERGENCY RESPONSE SUPPORT AND RESOURCES			
3.	6.14.7	Identify radiological laboratories	
4.	6.13 and ATTACH G	Identify other facilities and organizations which could assist	
D. - EMERGENCY CLASSIFICATION SYSTEM			
1.	6.2	Emergency Classifications	EPP 06-005, EMERGENCY CLASSIFICATION
2.	6.2	Initiating conditions	EPP 06-005, EMERGENCY CLASSIFICATION
3. & 4.	N/A		
E. - NOTIFICATION METHODS AND PROCEDURES			
1.	6.3.3, 6.5.2, 6.6.5, 6.8.2	Notifications	EPP 06-007, EMERGENCY NOTIFICATIONS
2.	6.16.1, 6.5.3	Notification of responding personnel	EPP 06-015, EMERGENCY RESPONSE ORGANIZATION CALLOUT
3.	6.3.3, 6.5.2, 6.6.5, 6.8.2	Initial notifications	EPP 06-007, EMERGENCY NOTIFICATIONS
4.a thru 4.n	6.5.2, 6.6.5, 6.8.2	Follow-up Notifications	EPP 06-007, EMERGENCY NOTIFICATIONS
5.	N/A		
6.	6.10.3, 6.3.4.3, Attach B	Evacuation times	
7.	6.16.2.4		
F. - EMERGENCY COMMUNICATIONS			
1.a	6.5		
1.b	6.5.2		
1.c	6.5.2, 6.5.4, 6.6.5, 6.6.9, 6.8.2		
1.d	6.4.4, 6.16		
1.e	6.5.3, 6.16.1	ERO Callout	EPP 06-015, EMERGENCY RESPONSE ORGANIZATION CALLOUT

ATTACHMENT C
(Page 4 of 8)
CROSS REFERENCE BETWEEN NUREG 0654, RERP, & WCGS PROCEDURES

0654 Section	RERP Section	Comments	Procedure
F. - EMERGENCY COMMUNICATIONS			
1.f	6.4.4, 6.5.2, 6.5.4, 6.6.9, 6.16.1		EPP 06-001, CONTROL ROOM OPERATIONS EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
2.	6.10.6		
3.	6.15, 6.18.1, 6.18.6		EPP 06-018, MAINTENANCE OF EMERGENCY FACILITIES AND EQUIPMENT/COMMUNICATION CHECKS
G. - PUBLIC EDUCATION AND INFORMATION			
1.	6.16.2		
2.	6.17.5, 6.17.6		
3.a	6.4.5, 6.16.2		EPP 06-004, PUBLIC INFORMATION ORGANIZATION
3.b	6.4.5		
4.a	6.9.2		EPP 06-004, PUBLIC INFORMATION ORGANIZATION
4.b	6.9.2, 6.9.11		EPP 06-004, PUBLIC INFORMATION ORGANIZATION
4.c	6.4.5, 6.9.10		EPP 06-004, PUBLIC INFORMATION ORGANIZATION
5.	6.16.2		
H. - EMERGENCY FACILITIES AND EQUIPMENT			
1.	6.4.2, 6.4.3, 6.6, 6.7		EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS
2.	6.4.4, 6.8		EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
3.	6.8	Establish EOF.	
4.	6.6.1, 6.8.1, Fig.2,3,4 ATTACH. D		
5.a	6.14.3, 6.14.4, 6.14.5		
5.b	6.4.1, 6.4.2, 6.14.2		EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL
5.c	6.2.2, 6.14.2		
5.d	6.14.6		
6.a	6.14.1		

ATTACHMENT C
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CROSS REFERENCE BETWEEN NUREG 0654, RERP, & WCGS PROCEDURES

0654 Section	RERP Section	Comments	Procedure
H. - EMERGENCY FACILITIES AND EQUIPMENT			
6.b	6.14.1 and Figure 8		EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL
6.c	6.14.7		
7.	6.15		EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL
8.	6.14.3		
9.	6.4.3		EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS
10.	6.15		EPP 06-018, MAINTENANCE OF EMERGENCY FACILITIES AND EQUIPMENT/COMMUNICATION CHECKS
11.	6.15		
12.	6.14.7		EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL
I. - ACCIDENT ASSESSMENT			
1.	6.2		APF 06-002-01, EMERGENCY ACTION LEVELS
2.	6.3.8, 6.14.2		EPP 06-017, CORE DAMAGE ASSESSMENT METHODOLOGY
3.a	6.3.7		EPP 06-012, DOSE ASSESSMENT
3.b	6.3.7		EPP 06-012, DOSE ASSESSMENT
4.	6.3.7		EPP 06-012, DOSE ASSESSMENT
5.	6.14.3		
6.	6.3.7		EPP 06-012, DOSE ASSESSMENT
7.	6.3.8, 6.8.4		EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL
8.	6.3.7, 6.5.2, 6.6.5, 6.8.2		
9.	6.4.2, 6.4.4	Lower bound for iodine measurement capability is 1.0E-7uCi/cc.	
10.	6.3.7		EPP 06-012, DOSE ASSESSMENT
11.	6.3.8		EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL
J. - PROTECTIVE RESPONSE			
1.a thru 1.d	6.3.10, 6.3.11, 6.6.5		EPP 06-010, PERSONNEL ACCOUNTABILITY AND EVACUATION
2.	6.3.10, 6.3.11, Figure 1		

ATTACHMENT C
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CROSS REFERENCE BETWEEN NUREG 0654, RERP, & WCGS PROCEDURES

0654 Section	RERP Section	Comments	Procedure
J. - PROTECTIVE RESPONSE			
3.	6.3.9, 6.3.12, 6.4.8,		
4.	6.3.9, 6.3.12		
5.	6.3.10, 6.3.11, 6.6.5		EPP 06-010, PERSONNEL ACCOUNTABILITY AND EVACUATION
6.a thru 6.c	6.3.13, 6.3.14		EPP 06-013, EXPOSURE CONTROL AND PERSONNEL PROTECTION EPP 06-011, EMERENCY TEAM FORMATION AND CONTROL
7.	6.3.3		EPP 06-006, PROTECTIVE ACTION RECOMMENDATION
8.	Attach. B		
9.	N/A		
10.a & 10.b	Fig. 1		
10.c	6.1.6, 6.1.7, 6.10.2		
10.d & 10.1	N/A		
10.m	6.3.4.2		EPP 06-006, PROTECTIVE ACTION RECOMMENDATION
11. & 12.	N/A		
K. - RADIOLOGICAL EXPOSURE CONTROL			
1.a thru 1.g	6.3, 6.4.6, 6.10.5, 6.10.6		
2.	6.3.15, 6.3.16, 6.5.2, 6.6.5, 6.8.2		EPP 06-001, CONTROL ROOM OPERATIONS EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
3.a & 3.b	6.3.16, 6.3.17, 6.3.18, 6.4.2, 6.15.1		
4.	N/A		
5.a & 5.b	6.3.20, 6.3.21		

ATTACHMENT C
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CROSS REFERENCE BETWEEN NUREG 0654, RERP, & WCGS PROCEDURES

0654 Section	RERP Section	Comments	Procedure
6.a thru 6.c	6.3.21, 6.3.22, ATTACH. E		
7.	6.3.13, 6.4.6		
L. - MEDICAL AND PUBLIC HEALTH SUPPORT			
1.	6.10.5		
2.	6.4.6		
3.	N/A		
4.	6.10.6		
M. - RECOVERY AND REENTRY PLANNING AND POST-ACCIDENT OPERATIONS			
1.0	6.21		EPP 06-008, RE-ENTRY, RECOVERY, AND TERMINATION OPERATIONS
2.	6.21		
3.	6.21		
4.	6.3.7	This is not specifically identified as a post-accident function	
N. - EXERCISES AND DRILLS			
1.a & 1.b	4.17, 6.19		EPP 06-009, DRILL AND EXERCISE REQUIREMENTS
2.a	6.18		
2.b	6.18.2		
2.c	6.18.3		
2.d	6.18.4		
2.e(1)	6.18.5		
2.e(2)	6.18.5		
3.a thru 3.f	6.19.5		
4.	6.19.4		
5.	6.19.4		
O. - RADIOLOGICAL EMERGENCY RESPONSE TRAINING			
1.a	6.17		EPP 06-021, TRAINING PROGRAMS
1.b	N/A		
2.	6.17.2, 6.17.4		
3.	6.4.6		
4.	6.17.4		
5.	6.17		
P. - RESPONSIBILITY FOR THE PLANNING EFFORT: DEVELOPMENT, PERIODIC REVIEW AND DISTRIBUTION OF EMERGENCY PLANS			
1.	6.17		
2.	5.3, 6.17.2		
3.	6.20.2		

ATTACHMENT C
(Page 8 of 8)
CROSS REFERENCE BETWEEN NUREG 0654, RERP, & WCGS PROCEDURES

0654 Section	RERP Section	Comments	Procedure
P. - RESPONSIBILITY FOR THE PLANNING EFFORT: DEVELOPMENT, PERIODIC REVIEW AND DISTRIBUTION OF EMERGENCY PLANS			
4.	6.20.2		
5.	6.20.2		
6.	6.10, 6.11		
7.	ATTACH. C		
8.	Table of Contents and ATTACH. C		
9.	6.20.1		
10.	6.20.2		

- END -

ATTACHMENT D
(Page 1 of 1)
WCGS MINIMUM STAFFING FOR EMERGENCIES

(Reference Step 3.1.10/Step 3.1.11)

FUNCTIONAL AREA	POSITION TITLE OR EXPERTISE	ON SHIFT	Capability For Additions: ** 60 mins	90 mins
Plant Operations & Assessment of Operational Aspects	Shift Manager (SRO)	1	-	-
	Control Room Supervisor (CRS)	1	-	-
	Reactor Operator (RO)	2	-	-
	Nuclear Station Operator	5***	-	-
Emergency Direction and Control	Site Emergency Manager	1*	-	-
Notification/ Communication	Emergency Communicator	2	3	-
Radiological Accident Assessment & Support of Operational Accident Assessment	Off-site Emergency Manager and staff	-	-	5
	Sr. Health Physics Expertise	-	1	-
	HP Personnel	3	8	-
	Chemistry Personnel	2	1	-
Plant System Engineering, Repair & Mitigative Actions	Shift Technical Advisor	1****	-	-
	Core/Thermal Hydraulics Eng.	-	1	-
	Electrical Eng.	-	1	-
	Mechanical Eng.	-	1	-
	Radwaste Operator	1*	-	-
	Mechanical Maint.	-	2	-
	Electrical Maint.	1*	2	-
	I&C Technician	-	1	-
Protective Actions (In-Plant)	HP Personnel	1*	4	-
Fire fighting = Fire Brigade(FB)	--	FB per TRM (TR5.2.1.b)	Local Support	Local Support
Rescue Operations and First Aid	--	2*	Local Support	Local Support
Site Access Control and Accountability	Security Personnel	All per Security Plan		
	TOTAL	17	25	5

* May be provided by shift personnel assigned to other functions.

** It is a goal to add, in accordance with this table, to the on-shift capabilities when determined necessary after a declared Emergency.

*** May be provided by a Reactor Operator (RO).

**** STA is required in Modes 1-4. An SRO capable of performing STA functions is required in Modes 5, 6 and defueled.

- END -

ATTACHMENT E
(Page 1 of 2)
EPA/KANSAS PROTECTIVE ACTION GUIDES

E.1 Population Protective Action Guides (PAG) For Exposure To A Plume - Early Phase

Protective Action	PAG (Projected Dose)	Comments
Evacuation	1-5 rem (Note 1)	Evacuation (or sheltering should normally be initiated at 1 rem.
Administration of stable iodine (Note 2)	5 rem (Note 3)	Special Populations

(1) Dose is TEDE, which includes effective dose equivalent from external and internal sources and committed effective dose equivalent from inhalation. Committed dose equivalents to the thyroid and to the skin may be 5 and 50 times larger, respectively.

(2) Use of KI is not planned for general population in Kansas. The State considers prompt evacuation of the public to be a more effective protective measure than administration of KI.

(3) Committed dose equivalent to be thyroid from radioiodine.

E.2 Emergency Worker Dose Limits

E.2.1 Keep all doses ALARA and limit doses to the following TEDE levels:

Dose Limit (Rem)	Activity	Condition
5	All	
10	Protecting valuable property	Lower dose not practicable
25	Life saving or protection of large populations	Lower dose not practicable
>25	Life saving or protection of large populations	Only on a voluntary basis to persons fully aware of the risks involved

E.3 Emergency Worker Iodine Dose Limits

E.3.1 Keep all doses ALARA and limit iodine doses to the following committed dose equivalent through use of KI and/or respiratory protection:

Dose Limit (Rem)	Activity
10	Any worker, any phase
No Limit - Life saving activities or protection of large populations	No specific upper limit is given for thyroid dose since in life saving activities, complete thyroid loss might be an acceptable sacrifice if a life can be saved. However, this should not be necessary if respirators and/or thyroid protections for rescue personnel are available as a result of adequate planning.

ATTACHMENT E
(Page 2 of 2)
EPA/KANSAS PROTECTIVE ACTION GUIDES

E.4 Protective Action Guides For Exposure To Deposited Radioactivity - Intermediate Phase

Protective Action	PAG (Projected Dose) (1)	Comments
Relocate the general population (2)	≥ 2 rem	Beta dose to skin may be up to 50 times higher. Doses in any single year after the first will not exceed 0.5 rem, and the cumulative dose over 50 years will not exceed 5 rem.
Apply simple dose reduction techniques (3)	<2 rem	These protective actions should be taken to reduce doses to as low as practicable levels

(1) The projected sum of effective dose equivalent from external gamma radiation and committed effective dose equivalent from inhalation suspended materials, from exposure or intake during the first year. Projected dose refers to the dose that would be received in the absence of shielding from structures of the application or dose reduction techniques. These PAGs may not provide adequate protection for some long-live radionuclides.

(2) Persons previously evacuated from areas outside the relocation zone defined by this PAG may return to occupy their residences. Cases involving relocation of persons at high risk from such action (e.g. patients under intensive care) should be evaluated individually.

(3) Simple dose reduction techniques include scrubbing and/or flushing hard surfaces, soaking or plowing soil, minor removal of soil from spots where radioactive materials have concentrated, and spending more time than usual indoors or in other low exposure rate areas.

- END -

ATTACHMENT F
(Page 1 of 1)
USAR CHAPTER 15 POSTULATED EVENTS

Feedwater system malfunctions that result in decrease of feedwater temperature
Feedwater system malfunctions that result in increase of feedwater system flow
Excessive increase in secondary steam flow
Inadvertent opening and failure to close of SG ARV or safety vlv
Steam system piping failure (inside containment)
Steam system piping failure (outside containment)
Loss of external load (Main Generator trip)
Turbine Trip
Inadvertent closure of MSIVs
Loss of condenser vacuum & other events resulting in turbine trip
Loss of non-emergency AC power to station auxiliaries
Loss of normal feedwater
Feedwater system pipe break
Partial loss of forced RCS flow
Complete loss of forced RCS flow
RCP shaft seizure (locked rotor)
RCP shaft break
Uncontrolled RCCA bank withdrawal from a subcritical of low-power startup condition
Uncontrolled RCCA withdrawal at power
RCCA misalignment
Startup of inactive RCP at an incorrect temperature
CVCS malfunction resulting in a decrease in the boron concentration in the RCS
Inadvertent loading and operation of a fuel assembly in improper position
RCCA ejection accidents
Inadvertent ECCS operation at power
CVCS malfunction that increases RCS inventory
Inadvertent opening, with failure to close, of pressurizer safety or relief valve
Break in instrument line or other lines from RCS pressure boundary that penetrate containment
SG tube rupture
LOCA spectrum
Radioactive waste gas decay tank failure
Postulated radioactive releases due to liquid tank failure
Fuel handling accident (inside containment)
Fuel handling accident (Fuel Building)
Spent fuel cask drop
Anticipated transients without scram

- END -

ATTACHMENT G
(Page 1 of 1)
LETTERS OF AGREEMENT

Party:

The Coffey County Sheriff's Office

Board of Trustees Fire District No. 1, Coffey County, KS

Newman Memorial Hospital

Coffey County Hospital and EMS

Topeka Air Ambulance Inc. (d.b.a. Life Star)

AirMD, LLC d/b/a Life Team

Wolf Creek Nuclear Operating Corporation/Union Electric Co. Emergency Mutual Assistance Agreement

INPO (Support During an Emergency)

Department of Energy**

Nuclear Regulatory Commission**

National Weather Service***

EPRI/INPO/NEI/Member Utilities Coordination Agreement on Emergency Information****

Westinghouse

Law Enforcement*****

* As of January 1, 1987, the Letters of Agreement in this Supplement are transferred from Kansas Gas and Electric Company to the Wolf Creek Nuclear Operating Corporation. These Letters of Agreement are maintained on file and may be reviewed upon request.

** These LOAs will not be updated. They have been superseded by the publication of the "Federal Radiological Emergency Response Plan" in the Federal Register on 11/8/85.

*** As of 8/25/93, the National Weather Service stated in writing that a Letter of Agreement with WCGS is unnecessary. Their "National Plan for Radiological Emergencies at Commercial Nuclear Power Plants," November 1982, remains in effect.

**** INPO 03-001, INPO Letter Of Agreement, is maintained on the INPO web page.

***** Agreements with Law Enforcement are safeguards information and, therefore, are controlled by Security.

- END -

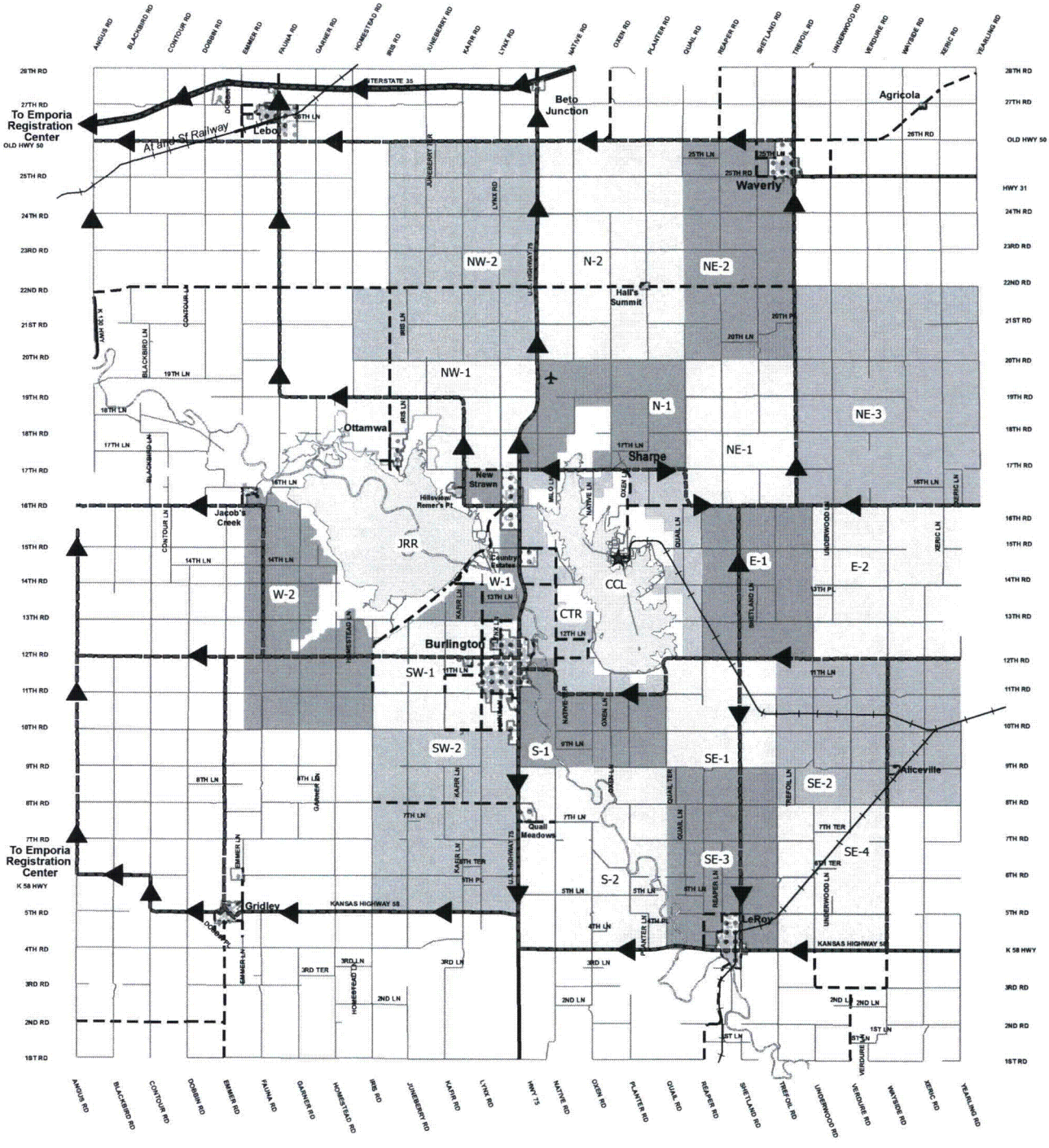
ATTACHMENT H
(Page 1 of 1)
REPORTING OF INCIDENTS PER 10 CFR 20

RADIATION INCIDENTS	VALUES	.2202 Telephone & Telegraph						.2203 Written		
		Immediate Notification			24 Hour Notification			30 Day Notification		
		WCGS	NRC	KDEM	WCGS	NRC	KDEM	WCGS	NRC	KDEM
TEDE	25 REM (.25 Sv)	X	X	X				X	X	X
	5 REM (.05 Sv)	X				X	X	X	X	X
	MPE .1201				X			X	X	X
Shallow dose to skin or extremities in excess of	250 Rad	X	X	X				X	X	X
	50 REM	X				X	X	X	X	X
	MPE .1201				X			X	X	X
To the eye	75 REM (.75 Sv)	X	X							
	15 REM (.15 Sv)	X				X	X			
	MPE .1201				X			X	X	
Effluent release excess of	5 ALI	X	X	X				X	X	X
	1 ALI	X				X	X	X	X	X
	MPE .1201				X			X	X	X

X = Indicates notification is required
MPE = Maximum Permissible Exposure
DAC = Derived Air Concentration
WCGS = Wolf Creek Generating Station
NRC = Nuclear Regulatory Commission
KDEM = Kansas Division of Emergency Management
ALI = Annual Limit on Intake

- END -

FIGURE 1
EFFECTIVE 10-MILE EPZ, SUBZONES AND EVACUATION ROUTES

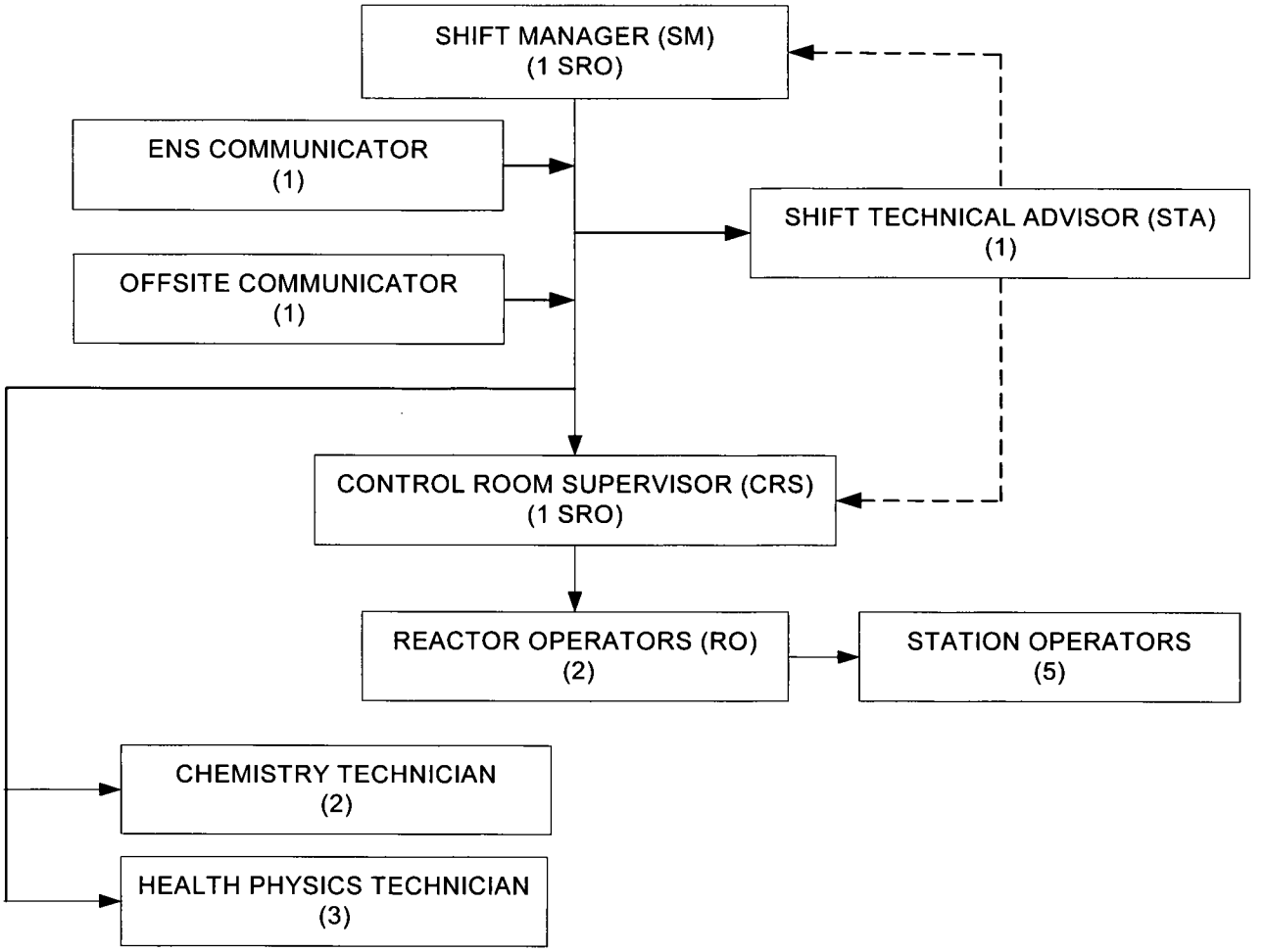


- END -

FIGURE 2
MINIMUM SHIFT STAFFING

NOTE

STA is required in Modes 1-4. An SRO capable of performing STA functions is required in Modes 5, 6 and defueled.



→ Direction

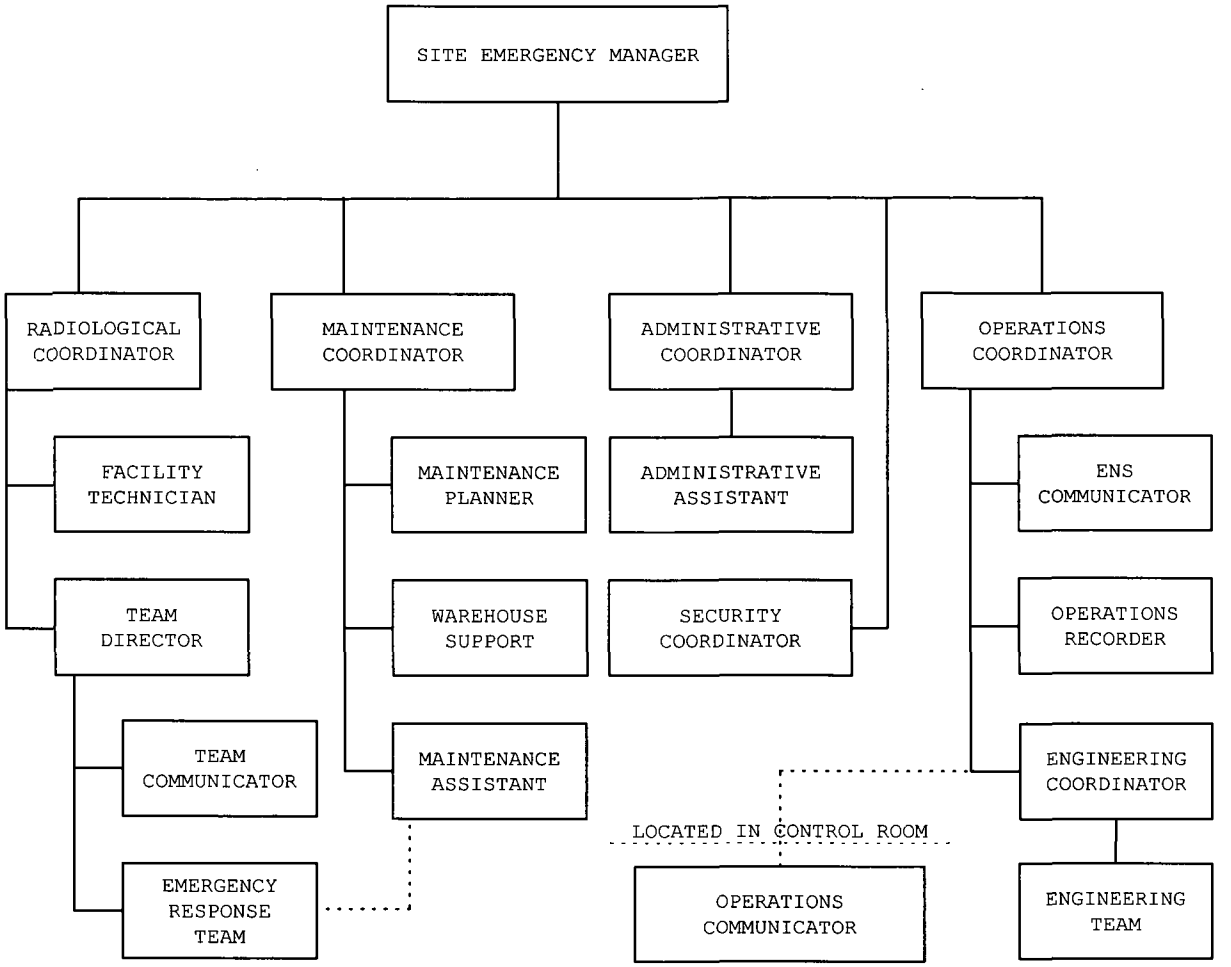
- - - - - - Technical Guidance

SRO = Senior Reactor Operator

STA = Shift Technical Advisor

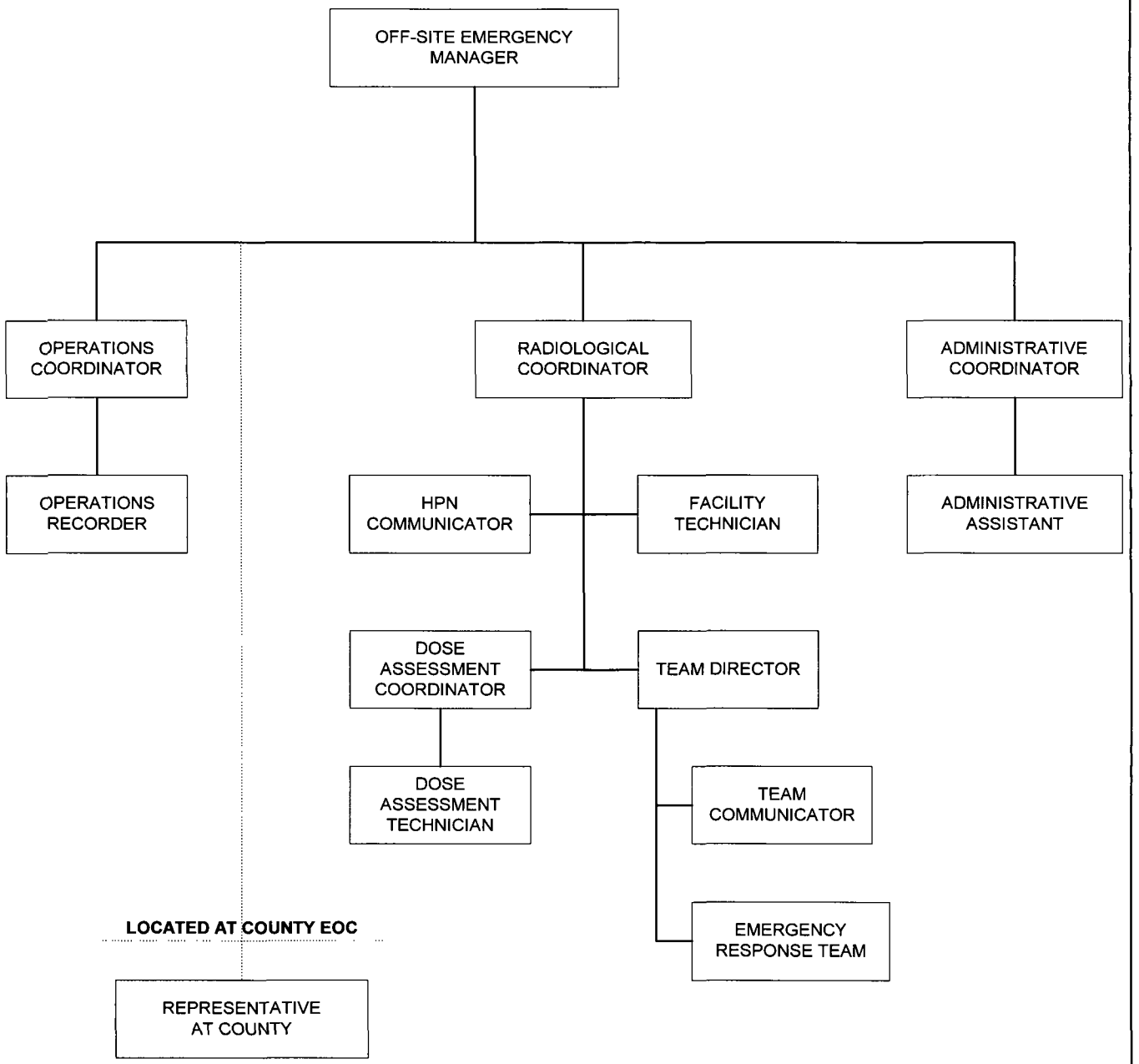
- END -

FIGURE 3
TSC/OSC ORGANIZATION



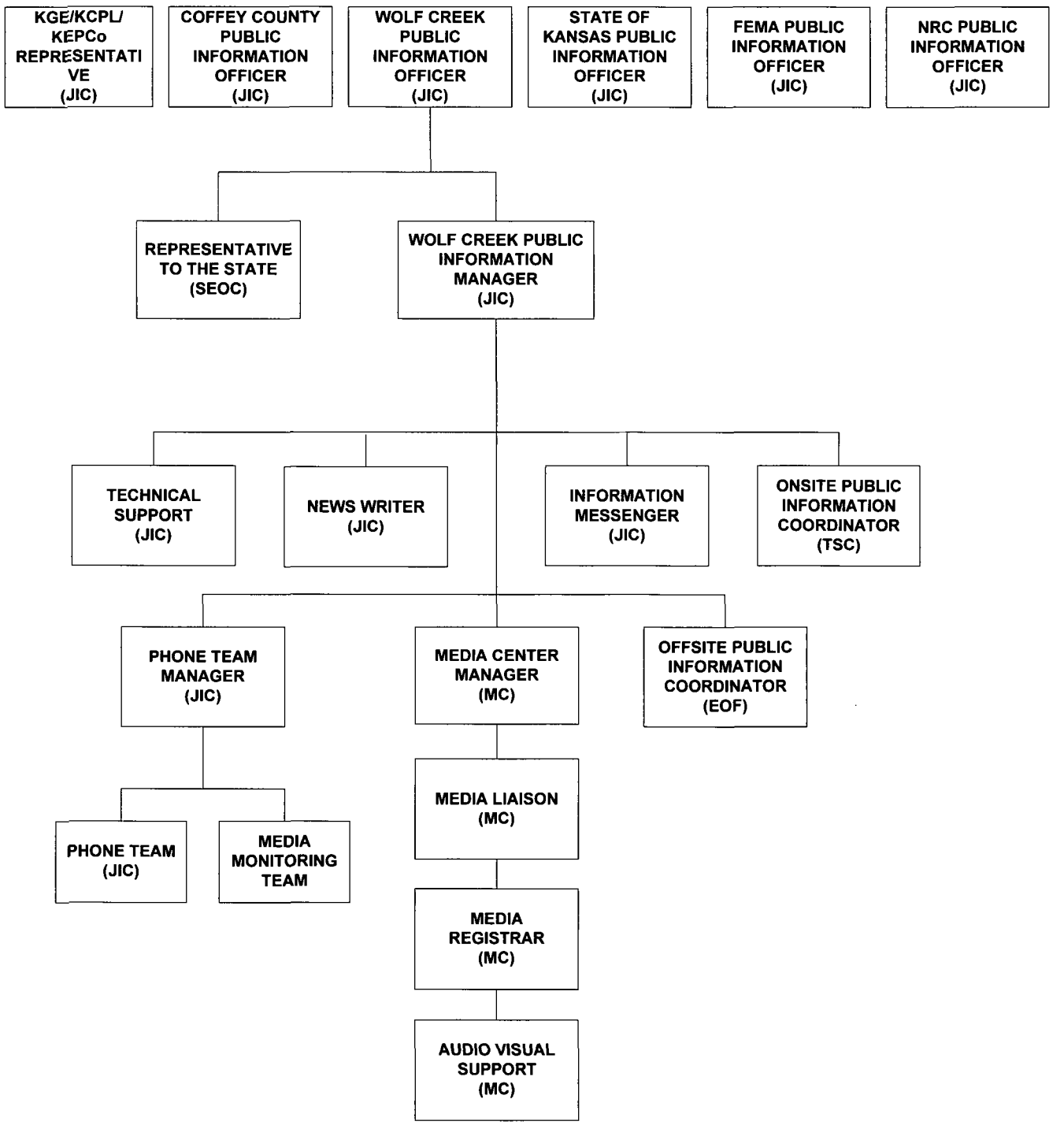
- END -

FIGURE 4
EOF ORGANIZATION



- END -

FIGURE 5
PUBLIC INFORMATION ORGANIZATION



- END -

EMERGENCY ORGANIZATIONS INTERFACES

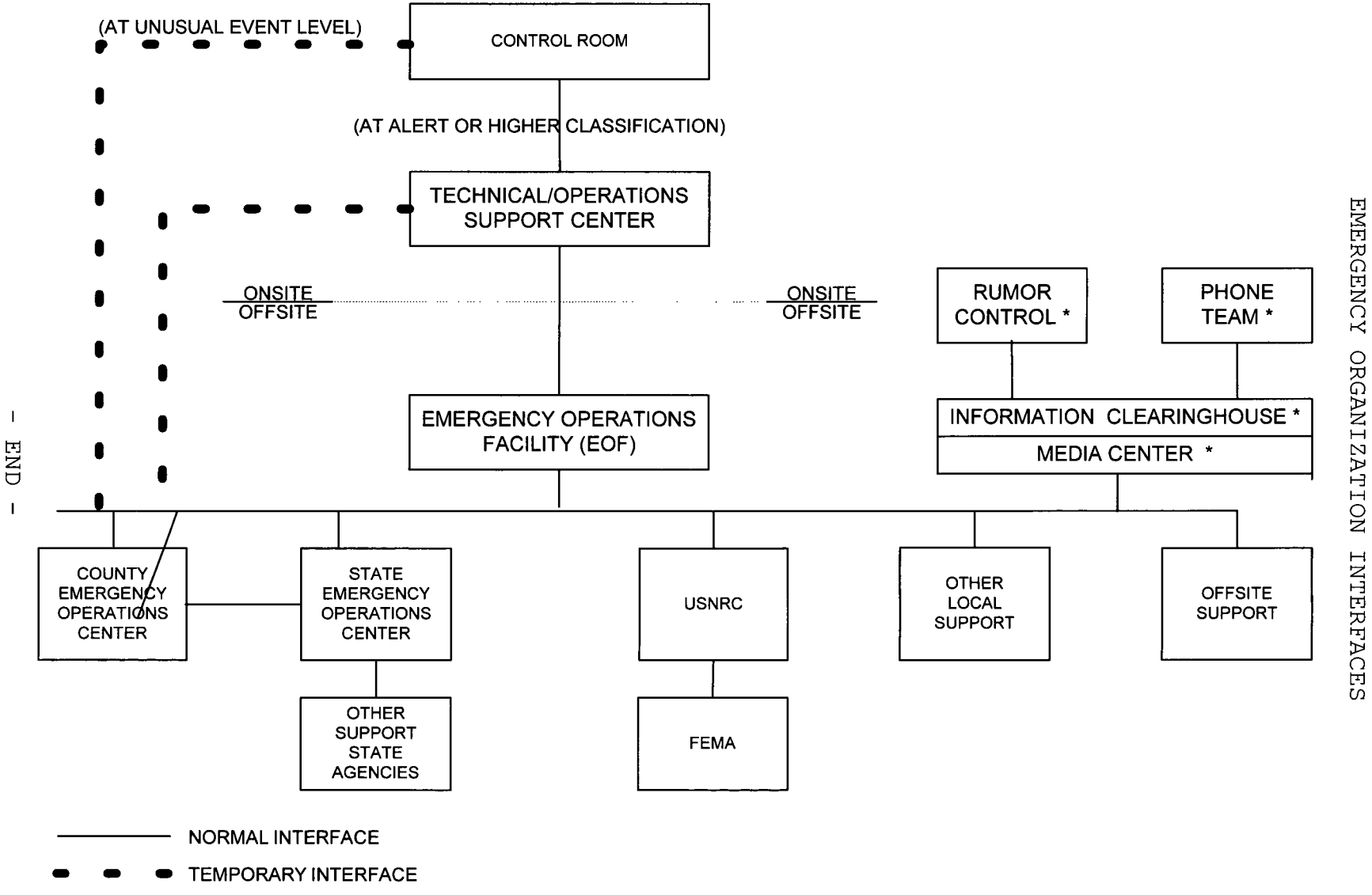
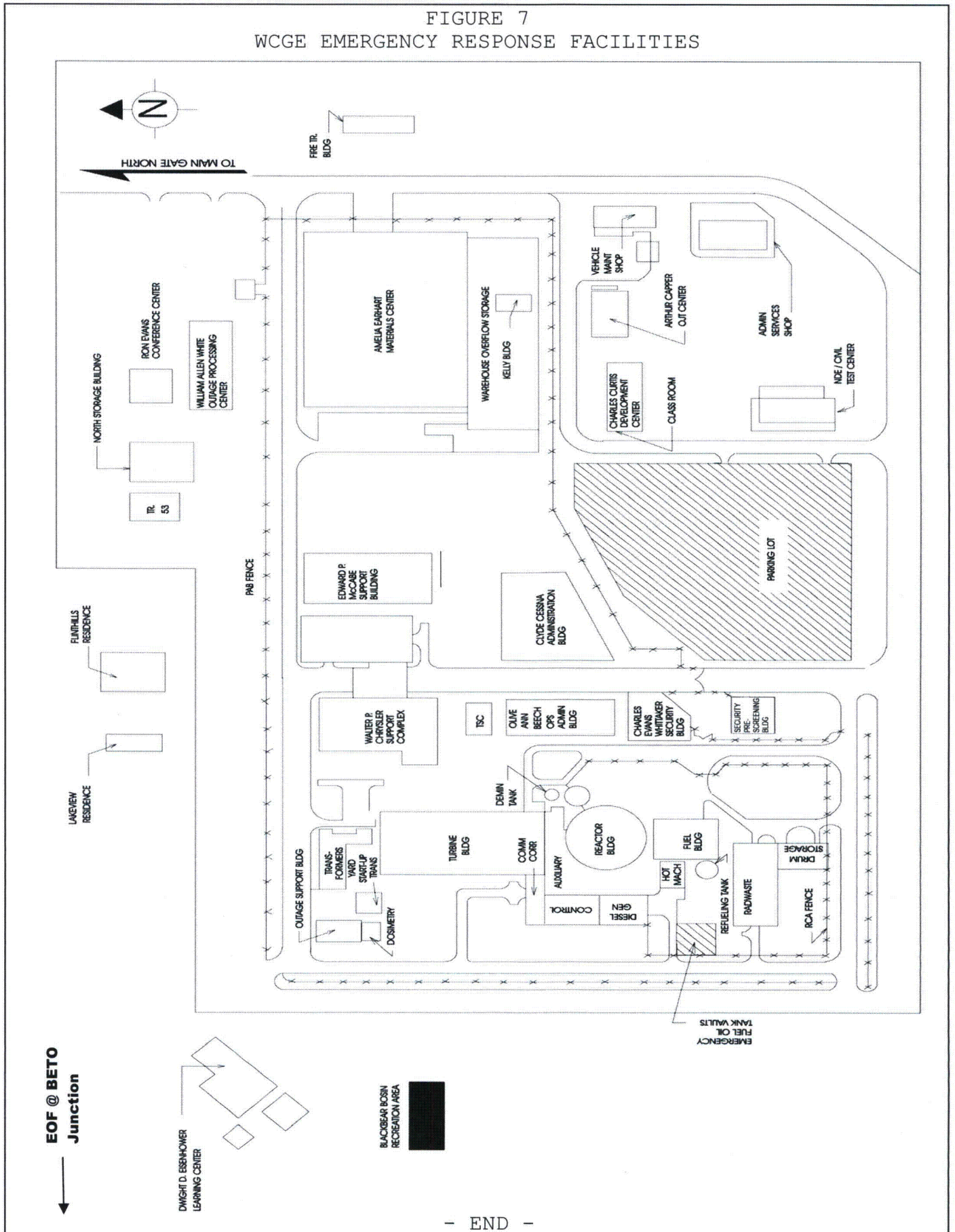


FIGURE 6
EMERGENCY ORGANIZATION INTERFACES

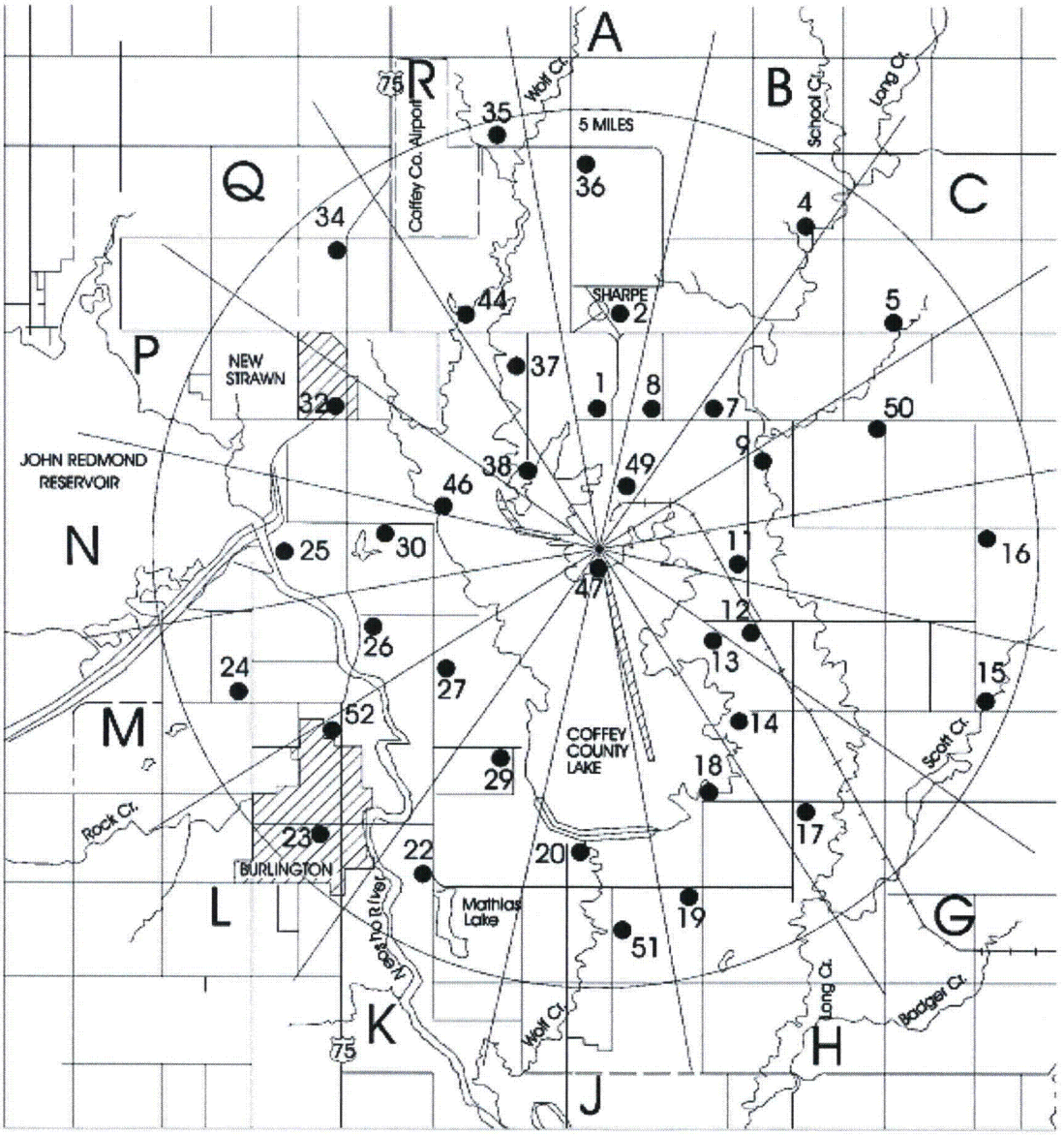
* Any of these functions may be activated at any emergency classification level.

FIGURE 7
WCGE EMERGENCY RESPONSE FACILITIES



- END -

FIGURE 8
DIRECT RADIATION PATHWAY SAMPLING LOCATIONS

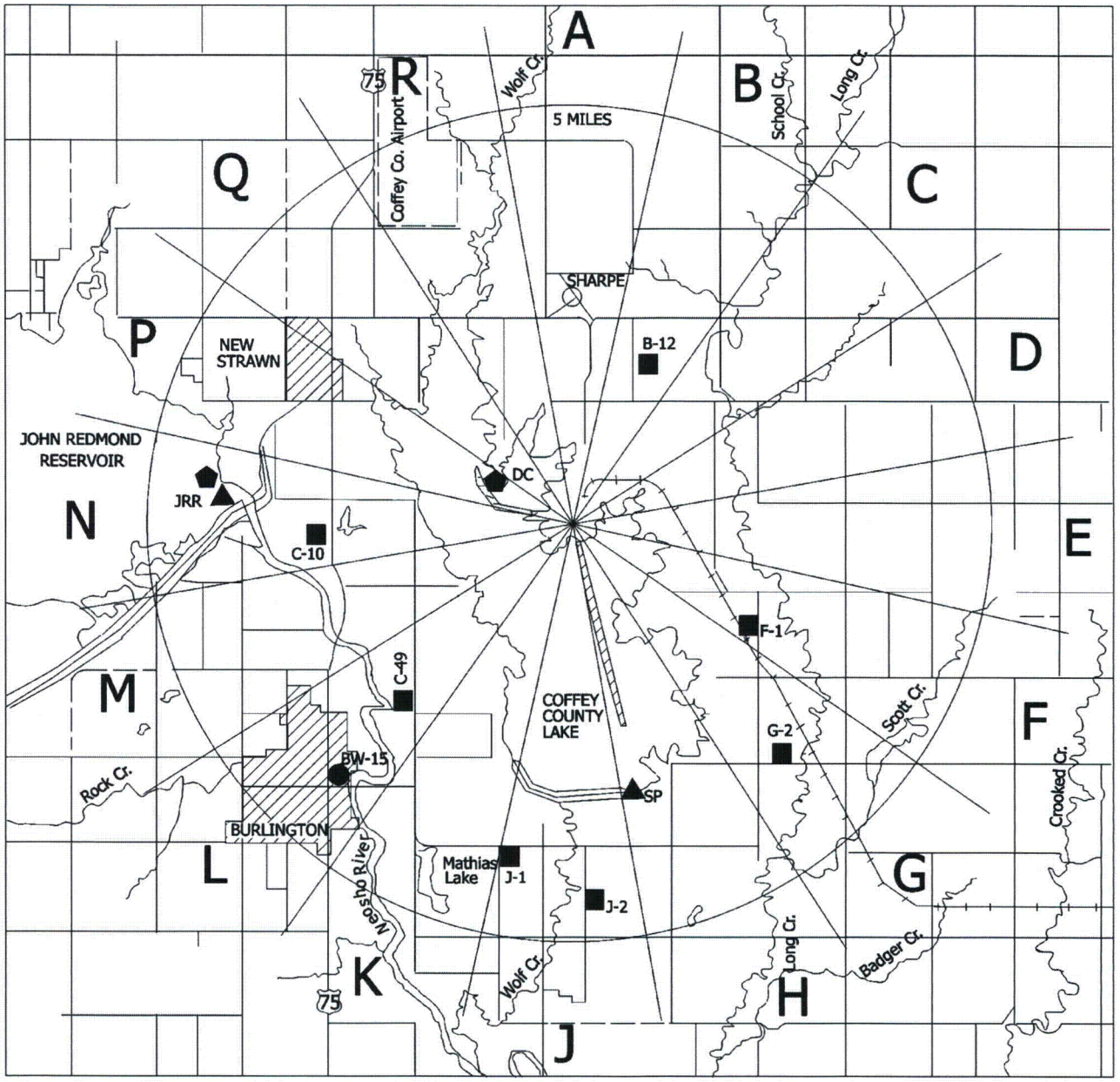


DIRECT RADIATION PATHWAY SAMPLING LOCATIONS

- RDD LOCATIONS

- END -

FIGURE 9
WATERBORNE PATHWAY SAMPLING LOCATIONS

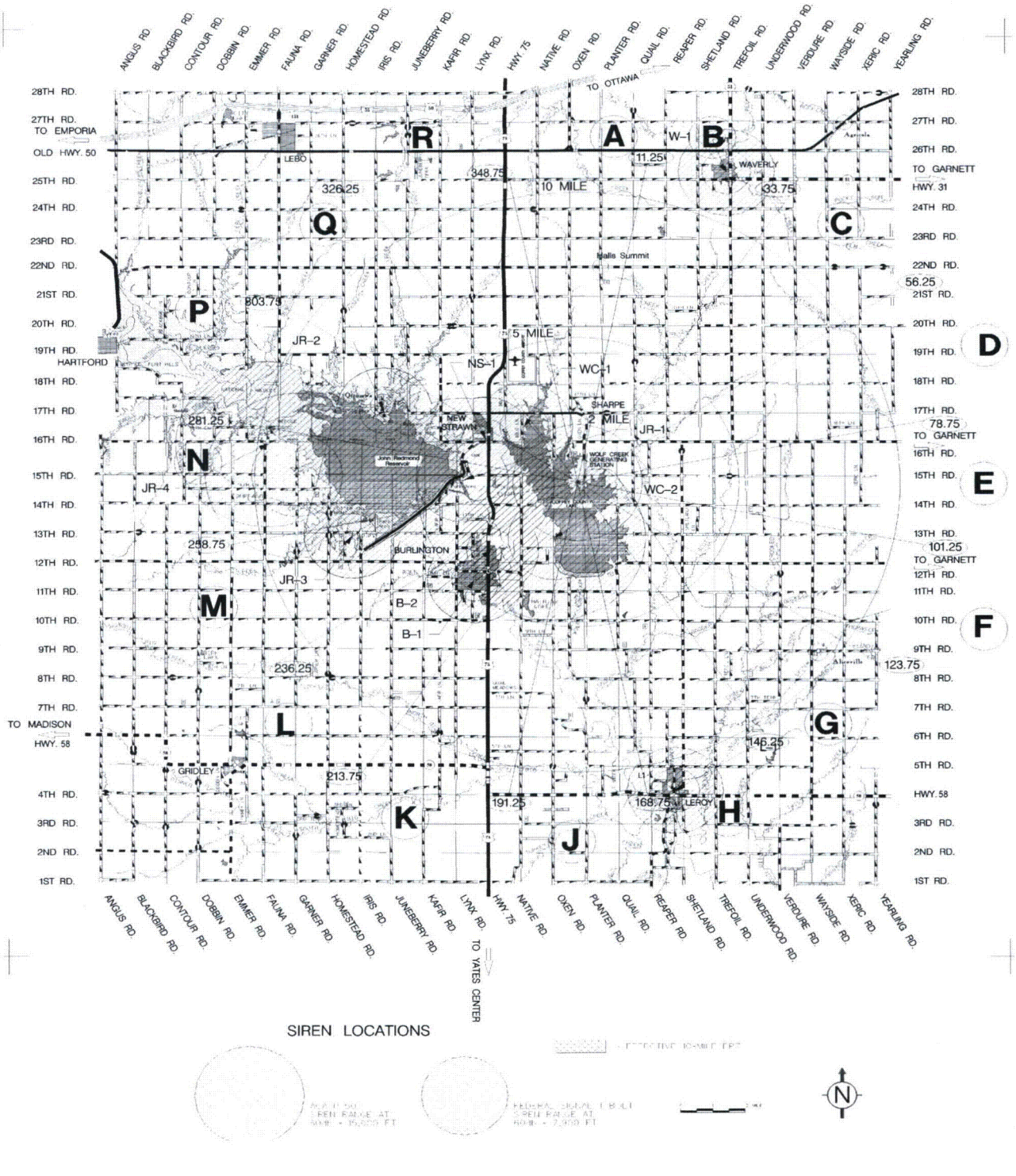


WATERBORNE PATHWAY SAMPLING LOCATIONS

● = DRINKING WATER
▲ = SURFACE WATER
■ = GROUND WATER
⬟ = SHORELINE SEDIMENT

- END -

FIGURE 10
FIXED SIREN SITING



- END -